

Set	Items	Description
S1	25	S AU=(GHARIB, J? OR GHARIB J?)
S2	74	S AU=(FARQUHAR, A? OR FARQUHAR A?)
S3	16	S AU=(KAULA, N? OR KAULA N?)
S4	47	S AU=(BLEWETT, J? OR BLEWETT J?)
S5	26	S AU=(FINLEY, E? OR FINLEY E?)
S6	3	S AU=(ELBANNA, J? OR ELBANNA J?)
S7	35	S AU=(MARTINELLI, S? OR MARTINELLI S?)
S8	10	S AU=(MEDEIROS, G? OR MEDEIROS G?)
S9	0	S JAMES (2N) GHARIB
S10	0	S ALLEN (2N) FARQUHAR
S11	0	S NORBERT (2N) KAULA
S12	0	S JEFFREY (2N) BLEWETT
S13	0	S ERIC (2N) FINLEY
S14	0	S JAMIL (2N) ELBANNA
S15	0	S SCOT (2N) MARTINELLI
S16	0	S GORETTI (2N) MEDEIROS
S17	313019	S NERVE? ? OR NEURAL OR NEURO?
S18	183	S S1:S8
S19	180	S S18 NOT S6
S20	23	S S19 AND S17

; show files

[File 350] Derwent WPIX 1963-2008/UD=200834
(c) 2008 The Thomson Corporation. All rights reserved.

[File 35] Dissertation Abs Online 1861-2008/Nov
(c) 2008 ProQuest Info&Learning. All rights reserved.

[File 65] Inside Conferences 1993-2008/May 29
(c) 2008 BLDSC all rts. reserv. All rights reserved.

6/5/1 (Item 1 from file: 350)

Fulltext available through: [Order File History](#)
Derwent WPIX
(c) 2008 The Thomson Corporation. All rights reserved.

0013813339 & & *Drawing available*
WPI Acc no: 2003-382307/200336

Related WPI Acc No: 2003-184257; 2003-333261; 2004-593291

XRPX Acc No: N2003-305430

Percutaneous pedicle integrity assessment system in neuro-physiology by applying stimulation signal and monitoring if adjacent nerves are enervated

Patent Assignee: ELBANNA J (ELBA-I); FARQUHAR A (FARQ-I); FINLEY E (FINL-I); GHARIB J (GHAR-I); KAULA N F (KAUL-I); MARTINELLI S (MART-I); MILES P (MILE-I); NUVASIVE INC (NUVA-N)

Inventor: ARAMBULA J; BLEWETT J; CASTLEBERRY J; CURRAN M; ELBANNA J; FARQUHAR A; FINLEY E; GHARIB J; HILDEBRAND B D; KAULA N; KAULA N F; KOVACH E; MARTINELLI S; MILES P; WOOLLEY T

Patent Family (6 patents, 100 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
---------------	------	------	--------------------	------	------	--------	------

WO 2003037170	A2	20030508	WO 2002US35047	A	20021030	200336	B
EP 1450681	A2	20040901	EP 2002789358	A	20021030	200457	E
			WO 2002US35047	A	20021030		
AU 2002353954	A1	20030512	AU 2002353954	A	20021030	200464	E
US 20050004623	A1	20050106	WO 2002US35047	A	20021030	200504	E
			US 2004836105	A	20040430		
JP 2005507700	W	20050324	WO 2002US35047	A	20021030	200523	E
			JP 2003539520	A	20021030		
US 6923814	B1	20050802	US 2001336501	P	20011030	200550	E
			US 2002283429	A	20021029		

Priority Applications (no., kind, date): US 2001336501 P 20011030; US 2002283429 A 20021029; WO 2002US35047 A 20021030; US 2004836105 A 20040430

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2003037170	A2	EN	29	28		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW					
EP 1450681	A2	EN			PCT Application	WO 2002US35047
					Based on OPI patent	WO 2003037170
Regional Designated States,Original	AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					
AU 2002353954	A1	EN			Based on OPI patent	WO 2003037170
US 20050004623	A1	EN			Continuation of application	WO 2002US35047

JP 2005507700	W	JA	83		PCT Application	WO 2002US35047
					Based on OPI patent	WO 2003037170
US 6923814	B1	EN			Related to Provisional	US 2001336501

Alerting Abstract WO A2

NOVELTY - An insulation member is introduced into the pedicle target site in a suitable fashion, electrical communication is established between a stimulation element and the interior of the pedicle screw pilot hole by disposing a K-wire through the insulator, a stimulation signal is applied to the stimulation element by applying voltage and/or current pulses of varying magnitude and/or frequency and the adjacent nerves are monitored to determine if they are enervated by visual inspection of muscle groups.

DESCRIPTION - AN INDEPENDENT CLAIM is included for a system for performing percutaneous pedicle integrity assessment.

USE - Performing percutaneous pedicle integrity assessment using neuro-physiology for percutaneous placement of pedicle screws during spinal surgery.

DESCRIPTION OF DRAWINGS - The drawing is a flow chart of the method.

Title Terms /Index Terms/Additional Words: PERCUTANEOUS; INTEGRITY; ASSESS; SYSTEM; NEURO; PHYSIOLOGICAL; APPLY; STIMULATING; SIGNAL; MONITOR; ADJACENT; NERVE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date			
A61B; A61B-017/56			Main		"Version 7"			
A61B-0017/16	A	N		R	20060101			
A61B-0017/17	A	N		R	20060101			
A61B-0017/56	A	I	F	R	20060101			
A61B-0017/88	A	I		R	20060101			
A61B-0005/04	A	I	L	B	20060101			
A61B-0005/0488	A	I		R	20060101			
A61B-0005/05	A	I		R	20060101			
A61B-0005/05	A	N		R	20060101			
A61B-0005/11	A	I		R	20060101			
A61N-0001/05	A	I	F	B	20060101			
A61N-0001/05	A	I		R	20060101			
A61N-0001/08	A	I		R	20060101			
A61N-0001/34	A	N		R	20060101			
A61B-0017/16	C	N		R	20060101			
A61B-0017/56	C	I	F	R	20060101			
A61B-0017/88	C	I		R	20060101			
A61B-0005/04	C	I	L	B	20060101			
A61B-0005/0488	C	I		R	20060101			
A61B-0005/05	C	I		R	20060101			
A61B-0005/05	C	N		R	20060101			

A61B-0005/11	C	I		R	20060101		
A61N-0001/05	C	I	L	B	20060101		
A61N-0001/05	C	I		R	20060101		
A61N-0001/08	C	I		R	20060101		
A61N-0001/32	C	N		R	20060101		

US Classification, Issued: 60748, 60699

File Segment: EngPI; EPI;
DWPI Class: S05; P31; P34
Manual Codes (EPI/S-X): S05-B03; S05-B09; S05-D01A2

6/5/2 (Item 2 from file: 350)

Fulltext available through: [Order File History](#)

Derwent WPIX

(c) 2008 The Thomson Corporation. All rights reserved.

0013811917 & & *Drawing available*

WPI Acc no: 2003-333261/200331

Related WPI Acc No: 2003-184257; 2003-382307; 2004-593291

XRPX Acc No: N2003-267077

System for performing surgical procedures and assessments has surgical accessory with stimulation electrode and processing system to determine nerve proximity, nerve direction, pedicle integrity and neural pathology

Patent Assignee: BLEWETT J J (BLEW-I); ELBANNA J (ELBA-I); FARQUHAR A (FARQ-I); FINLEY E (FINL-I); GHARIB J (GHAR-I); KAULA N (KAUL-I); MARTINELLI S (MART-I); MEDEIROS G (MEDE-I); NUVASIVE INC (NUVA-N)

Inventor: BLEWETT J; BLEWETT J J; ELBANNA J; FARQUHAR A; FINLEY E; GHARIB J; KAULA N; MARTINELLI S; MEDEIROS G

Patent Family (5 patents, 99 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2003026482	A2	20030403	WO 2002US30617	A	20020925	200331	B
EP 1435828	A2	20040714	EP 2002778359	A	20020925	200446	E
			WO 2002US30617	A	20020925		
AU 2002340026	A1	20030407	AU 2002340026	A	20020925	200461	E
JP 2005503857	W	20050210	WO 2002US30617	A	20020925	200511	E
			JP 2003530128	A	20020925		
US 20050075578	A1	20050407	WO 2002US30617	A	20020925	200525	E
			US 2004809280	A	20040325		

Priority Applications (no., kind, date): US 2001325424 P 20010925; WO 2002US30617 A 20020925; US 2004809280 A 20040325

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2003026482	A2	EN	79	35		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW					
EP 1435828	A2	EN			PCT Application	WO 2002US30617
					Based on OPI patent	WO 2003026482
Regional Designated States,Original	AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					
AU 2002340026	A1	EN			Based on OPI patent	WO 2003026482
JP 2005503857	W	JA	116		PCT Application	WO 2002US30617
					Based on OPI patent	WO 2003026482
US 20050075578	A1	EN			Continuation of application	WO 2002US30617

Alerting Abstract WO A2

NOVELTY - System has surgical accessory with at least one stimulation electrode. Processing system has computer programming software, firmware and hardware capable of stimulating stimulation electrode on surgical accessory. System measures response of nerves depolarized by stimulation. Relationship is determined between surgical accessory and nerve based on measured response. Relationship is communicated to user and is used to determine at least one of nerve proximity, nerve direction, pedicle integrity and neural pathology.

USE - For use during surgery.

ADVANTAGE - Combines neurophysiology monitoring with a variety of instruments used in or in preparation for surgery.

DESCRIPTION OF DRAWINGS - The figure shows a surgical system capable of determining nerve proximity.

Title Terms /Index Terms/Additional Words: SYSTEM; PERFORMANCE; SURGICAL; PROCEDURE; ASSESS; ACCESSORY; STIMULATING; ELECTRODE; PROCESS; DETERMINE; NERVE; PROXIMITY; DIRECTION; INTEGRITY; NEURAL; PATHOLOGICAL

Class Codes

International Patent Classification

IPC	Class	Scope	Position	Status	Version Date
-----	-------	-------	----------	--------	--------------

	Level					
A61B			Main		"Version 7"	
A61B-0001/00	A	I		R	20060101	
A61B-0017/34	A	I		R	20060101	
A61B-0019/00	A	N		R	20060101	
A61B-0005/04	A	I		R	20060101	
A61B-0005/0488	A	I	F	R	20060101	
A61B-0005/0492	A	I		R	20060101	
A61B	S	I		R	20060101	
A61B-0001/00	C	I		R	20060101	
A61B-0017/34	C	I		R	20060101	
A61B-0019/00	C	N		R	20060101	
A61B-0005/04	C	I		R	20060101	
A61B-0005/0488	C	I	F	R	20060101	

US Classification, Issued: 600554, 600546

File Segment: EngPI; EPI;

DWPI Class: S05; T01; P31

Manual Codes (EPI/S-X): S05-B04; S05-D01A2; T01-J06A

6/5/3 (Item 3 from file: 350)

Fulltext available through: [Order File History](#)

Derwent WPIX

(c) 2008 The Thomson Corporation. All rights reserved.

0011153076 & & *Drawing available*

WPI Acc no: 2002-090288/200212

XRPX Acc No: N2002-066474

Guide frame for surgical instruments and method of use has an instrument holder supported by its curved end in a cross member that can lock the instrument at an angle and be raised and lowered

Patent Assignee: ARAMBULA J (ARAM-I); ELBANNA J (ELBA-I); FINLEY E (FINL-I); FOLEY K (FOLE-I); MARINO J F (MARI-I); MATSUURA D (MATS-I); NUVASIVE INC (NUVA-N) ; STONE A C (STON-I); WOOLLEY T (WOOL-I)

Inventor: ARAMBULA J; ELBANNA J; FINLEY E; FOLEY K; MARINO J F; MATSUURA D; STONE A C; WOOLLEY T

Patent Family (5 patents, 95 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2001097680	A2	20011227	WO 2001US20120	A	20010622	200212	B
US 20020007188	A1	20020117	US 2000213730	P	20000622	200212	E
			US 2000226781	P	20000821		

			US 2001888223	A	20010622		
AU 200170119	A	20020102	AU 200170119	A	20010622	200230	E
EP 1296610	A2	20030402	EP 2001948668	A	20010622	200325	E
			WO 2001US20120	A	20010622		
US 7166113	B2	20070123	US 2000213730	P	20000622	200708	E
			US 2000226781	P	20000821		

			US 2001888223	A	20010622		
--	--	--	---------------	---	----------	--	--

Priority Applications (no., kind, date): US 2000213730 P 20000622; US 2000226781 P 20000821; US 2001888223 A 20010622

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2001097680	A2	EN	60	29		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW					
Regional Designated States,Original	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
US 20020007188	A1	EN			Related to Provisional	US 2000213730
					Related to Provisional	US 2000226781
AU 200170119	A	EN			Based on OPI patent	WO 2001097680
EP 1296610	A2	EN			PCT Application	WO 2001US20120
					Based on OPI patent	WO 2001097680
Regional Designated States,Original	AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
US 7166113	B2	EN			Related to Provisional	US 2000213730
					Related to Provisional	US 2000226781

Alerting Abstract WO A2

NOVELTY - The guide frame has an instrument holder (119) that may have a coronal marker and a curved end (114) that rotates the instrument as it is moved through a support (121). The height may be varied in horizontal and vertical planes. The guide may have on the curved end alignment target (150), radiopaque height and angle markers and a laser emitting light in two perpendicular planes passing through the cross member center of curvature
DESCRIPTION - INDEPENDENT CLAIMS are also included for

A. A guide frame with two cross member supports

B. The method of use of the guide frame

USE - To position surgical instrument especially in spinal surgery

ADVANTAGE - The frame can quickly and easily position the instrument both in the selected plane and angle to the plane

DESCRIPTION OF DRAWINGS - Perspective view of the guide frame

114 Curved end of instrument holder

121 Cross member support

150 Alignment target

Title Terms /Index Terms/Additional Words: GUIDE; FRAME; SURGICAL; INSTRUMENT; METHOD; HOLD; SUPPORT; CURVE; END; CROSS; MEMBER; CAN; LOCK; ANGLE; RAISE; LOWER

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date			
A61B-0017/17	A	I		R	20060101			
A61B-0018/20	A	N		R	20060101			
A61B-0019/00	A	I		R	20060101			
A61B-0019/00	A	I	F	B	20060101			
A61B-0017/16	C	I		R	20060101			
A61B-0018/20	C	N		R	20060101			
A61B-0019/00	C	I		R	20060101			
A61B-0019/00	C	I	F	B	20060101			

US Classification, Issued: 606130, 606130, 600417, 600429

File Segment: EngPI; ;

DWPI Class: P31

20/5/1 (Item 1 from file: 350)

Fulltext available through: [Order File History](#)

Derwent WPIX

(c) 2008 The Thomson Corporation. All rights reserved.

0017627053 & & *Drawing available*

WPI Acc no: 2008-E47500/200830

XRPX Acc No: N2008-350244

System for accessing surgical site within, e.g. spine, in order to perform surgical procedures has supplemental retractor assembly which has caudal retractor blade introduced into surgical target site and moved to expand operative corridor

Patent Assignee: NUVASIVE INC (NUVA-N)

Inventor: BLEWETT J; FARQUHAR A; FINLEY E; GHARIB J; KAULA N; MARTINELLI S; MEDEIROS G; MILES P

Patent Family (1 patents, 1 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20080097164	A1	20080424	US 2003440905	P	20030116	200830	B
			US 2004759811	A	20040116		

Priority Applications (no., kind, date): US 2003440905 P 20030116; US 2004759811 A 20040116

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
US 20080097164	A1	EN	28	18	Related to Provisional US 2003440905

Alerting Abstract US A1

NOVELTY - The system has a primary retractor assembly having a handle assembly and posterior retractor blade (12), an anterior retractor blade (14), and a cephalad retractor blade (16) removably coupled to the handle; and a supplemental retractor assembly having an arm with a caudal retractor blade (18) removably coupled to the arm. The arm is selectively coupled to the handle assembly of a primary retractor assembly. The fourth retractor blade is introduced into the surgical target site and moved to expand the operative corridor.

DESCRIPTION - An **INDEPENDENT CLAIM** is also included for a method of accessing a surgical target site within a spine.

USE - System for accessing a surgical site within, e.g. a spine, in order to perform surgical procedures. Uses include but are not limited when introducing implants and/or instruments through the working cannula, spinal fusion constructs, such as allograft implants, ceramic implants, cages, mesh, fixation devices, such as pedicle and/or facet screws and related tension bands or rod systems, and any number of motion-preserving devices including but not limited to nucleus replacement and/or total disc replacement systems.

ADVANTAGE - The access system is used to traverse tissue that would ordinarily be deemed unsafe or undesirable, thereby broadening the number of manners in which a given surgical target site may be accessed. The surgical access system accesses a surgical target site in a fashion less invasive than traditional open surgeries and doing so in a manner that provides access in spite of the neural structures required to be passed through or near in order to establish an operative corridor to the surgical target site. Provides a tissue distraction assembly and a tissue retraction assembly, both of which may be equipped with one or more electrodes for use in detecting the existence of and optionally the distance and/or direction to neural structures.

DESCRIPTION OF DRAWINGS - The drawing shows the perspective view of the retractor assembly where an anterior retractor blade is provided coupled to the linkage assembly via an arm assembly.

12 Posterior retractor blade

14 Anterior retractor blade

16 Cephalad retractor blade

18 Caudal retractor blade

38 Arm assembly

Title Terms /Index Terms/Additional Words: SYSTEM; ACCESS; SURGICAL; SITE; SPINE; ORDER ; PERFORMANCE; PROCEDURE; SUPPLEMENTARY; RETRACT; ASSEMBLE; CAUDAL; BLADE; INTRODUCING; TARGET; MOVE; EXPAND; OPERATE; CORRIDOR

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date			
A61B-0001/32	A	I	F	B	20060101			
A61B-0001/32	C	I		B	20060101			

US Classification, Issued: 600219

File Segment: EngPI; ;
DWPI Class: P31

20/5/2 (Item 2 from file: 350)

Fulltext available through: [Order File History](#)

Derwent WPIX

(c) 2008 The Thomson Corporation. All rights reserved.

0017478859 & & *Drawing available*

WPI Acc no: 2008-C99297/200821

XRPX Acc No: N2008-234116

Spinal target site accessing method for use by spine surgeon, involves moving anterior retractor blade relative to affixed posterior retractor blade such that operative corridor is established between blades to target site

Patent Assignee: NUVASIVE INC (NUVA-N)

Inventor: BLEWETT J; FARQUHAR A; FINLEY E; GHARIB J; KAULA N; MARTINELLI S; MILES P

Patent Family (1 patents, 1 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20080058606	A1	20080306	US 2003682568	A	20031008	200821	B

Priority Applications (no., kind, date): US 2003682568 A 20031008

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
US 20080058606	A1	EN	30	19	

Alerting Abstract US A1

NOVELTY - The method involves affixing a posterior retractor blade (12) introduced into a spinal target site via a

lateral, trans-psoas approach such that the retractor blade is positioned along a posterior aspect of the spinal target site and fixed relative to the spinal target site. An anterior retractor blade (14) is introduced into the spinal target site via the lateral, trans-psoas approach and is moved relative to the affixed posterior retractor blade such that an operative corridor is established between the posterior and anterior retractor blades to the spinal target site.

USE - Method for accessing a spinal target site located beneath or behind musculature or strong tissue such as psoas muscle adjacent to the spine, via a lateral, trans-psoas surgical approach, using a surgical access system by a spine surgeon.

ADVANTAGE - The method accesses the surgical target site in a less invasive fashion compared to open surgeries, and provides access even when the neural structures are required to be passed through or near to establish an operative corridor to the surgical target site.

DESCRIPTION OF DRAWINGS - The drawing shows a perspective view of a tissue retraction assembly forming a part of a surgical access system, and including a posterior retractor blade, an anterior retractor blade and two supplemental retractor blades.

10 Tissue retraction assembly

12 Posterior retractor blade

14 Anterior retractor blade

20 Mounting structure

22, 24 Shim elements

Title Terms /Index Terms/Additional Words: SPINE; TARGET; SITE; ACCESS; METHOD; SURGEON ; MOVE; ANTERIOR; RETRACT; BLADE; RELATIVE; AFFIX; POSTERIOR; OPERATE; CORRIDOR; ESTABLISH

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date			
A61B-0001/32	A	I	F	B	20060101			
A61B-0001/32	C	I		B	20060101			

US Classification, Issued: 600214

File Segment: EngPI; ;

DWPI Class: P31

20/5/3 (Item 3 from file: 350)

Fulltext available through: [Order File History](#)

Derwent WPIX

(c) 2008 The Thomson Corporation. All rights reserved.

0016792035 & & *Drawing available*

WPI Acc no: 2007-507098/200749

Related WPI Acc No: 2006-594794

XRPX Acc No: N2007-387541

Neurophysiologic assessing method involves delivering multiple electrical stimulation signals with selected current level to tissue and detecting neuro-muscular response evoked by signals, so as to determine spinal cord health

Patent Assignee: NUVASIVE INC (NUVA-N)

Inventor: FARQUHAR A

Patent Family (1 patents, 115 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2007038290	A2	20070405	WO 2006US37013	A	20060922	200749	B

Priority Applications (no., kind, date): US 2005719897 P 20050922

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
WO 2007038290	A2	EN	51	13	
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HN HR HU ID IL IN IS JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MY MZ NA NG NI NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SK SL SM SV SY TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW				
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW				

Alerting Abstract WO A2

NOVELTY - The method involves delivering multiple electrical stimulation signals with a selected current level to a tissue and detecting neuro-muscular response evoked by the signals using electromyography (EMG) sensor and peak-to-peak voltage in range of 20 uV -100 uV is measured. The pedicle integrity, nerve proximity, nerve pathology and spinal cord health are determined, based on identified relationship between current levels and neuro-muscular response. The stimulation signals are omitted when neuro-muscular response is predictable.

DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

1. software application operated on neuro-physiological monitoring system; and
2. algorithm for directing delivery of stimulation signal.

USE - For neuro-physiological monitoring system.

ADVANTAGE - An efficient assessment of risk to neural tissues is enabled and stimulation threshold for neural tissue is determined accurately.

DESCRIPTION OF DRAWINGS - The figure shows a flowchart indicating the steps involved in neuro-physiological assessment.

Title Terms /Index Terms/Additional Words: ASSESS; METHOD; DELIVER; MULTIPLE; ELECTRIC; STIMULATING; SIGNAL; SELECT; CURRENT; LEVEL; TISSUE; DETECT; NEURO; MUSCLE; RESPOND; SO; DETERMINE; SPINE; CORD; HEALTH

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date			
A61B-0005/04	A	I	F	B	20060101			
A61B-0005/04	C	I		B	20060101			

File Segment: EngPI; EPI;

DWPI Class: S05; T01; P31

Manual Codes (EPI/S-X): S05-D01A2; T01-J06A; T01-J16C1

20/5/4 (Item 4 from file: 350)

Fulltext available through: [Order File History](#)

Derwent WPIX

(c) 2008 The Thomson Corporation. All rights reserved.

0016761275 & & *Drawing available*

WPI Acc no: 2007-476343/200746

XRFX Acc No: N2007-362050

Neuromonitoring system for monitoring nervous tissue, has control unit assessing whether bone forming part of vertebra is one of breached or near breaching due to one of screw placement, hole formation, and hole preparation

Patent Assignee: NUVASIVE INC (NUVA-N)

Inventor: CALANCIE B; FARQUHAR A; GHARIB J; LAYMAN D

Patent Family (2 patents, 115 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2007035925	A2	20070329	WO 2006US37289	A	20060922	200746	B
WO 2007035925	A3	20071101				200774	E

Priority Applications (no., kind, date): US 2005719886 P 20050922

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
WO 2007035925	A2	EN	45	13	
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM				

	HN HR HU ID IL IN IS JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MY MZ NA NG NI NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SK SL SM SV SY TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW					
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
WO 2007035925	A3	EN				
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HN HR HU ID IL IN IS JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MY MZ NA NG NI NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SK SL SM SV SY TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW					

Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
--	--

Alerting Abstract WO A2

NOVELTY - The system has a stimulator (22) to deliver a stimulation signal comprised of multiple electrical pulses to a nervous tissue within a patient. A sensor detects a neuromuscular response evoked by the signal. A control unit (12) is communicatively linked to the stimulator and sensor to direct the stimulator to deliver the stimulation signal of multiple electrical pulses. The control unit receives and processes the neuromuscular response, and assesses whether bone forming a part of a vertebra is one of breached or near breaching due to one of screw placement, hole formation, and hole preparation.

DESCRIPTION - An **INDEPENDENT CLAIM** is also included for a method for testing the integrity of a bone in one of the thoracic and cervical regions of a spine.

USE - Used for monitoring a nervous tissue to assess integrity of a pedicle wall during or after pilot hole formation and before, during, or after screw implantation, in a thoracic spine and a cervical spine.

ADVANTAGE - The control unit assesses whether bone forming the part of the vertebra is one of breached or near breaching due to one of screw placement, hole formation, and hole preparation, thus enabling to assess one of pedicle integrity of a lumbar spine, nerve proximity, nerve pathology, neuromuscular pathway status, and spinal cord health.

DESCRIPTION OF DRAWINGS - The drawing shows a perspective view of a neuromonitoring system capable of performing neurophysiologic assessments.

10 Neuromonitoring system

12 Control unit

14 Patient module

16 EMG harness

18 EMG electrodes

22 Stimulator

23 Stimulation electrodes

25 Data cable

26 Touch screen display

28 Base

Title Terms /Index Terms/Additional Words: SYSTEM; MONITOR; NERVE; TISSUE; CONTROL; UNIT; ASSESS; BONE; FORMING; PART; VERTEBRA; ONE; BREACH; SCREW; PLACE; HOLE; FORMATION; PREPARATION

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date			
A61N-0001/00	A	I	F	B	20060101			
A61N-0001/08	A	I	F	B	20060101			
A61N-0001/00	C	I		B	20060101			
A61N-0001/08	C	I	F	B	20060101			

File Segment: EngPI; EPI;

DWPI Class: S05; P34

Manual Codes (EPI/S-X): S05-A02B; S05-D01A2; S05-D01J

20/5/5 (Item 5 from file: 350)

Fulltext available through: [Order File History](#)

Derwent WPIX

(c) 2008 The Thomson Corporation. All rights reserved.

0016576071 & & *Drawing available*

WPI Acc no: 2007-291008/200728

XRPX Acc No: N2007-213686

Neurophysiologic assessment performing system for e.g. nerve pathology, has display that provides one of alpha-numeric and graphic indicia with one of two and three dimensional pressure maps

Patent Assignee: NUVASIVE INC (NUVA-N)

Inventor: FARQUHAR A; GHARIB J; IVANKO D; MARTINELLI S; VERHAGE B

Patent Family (1 patents, 1 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20070021682	A1	20070125	US 2005701305	P	20050720	200728	B
			US 2006490717	A	20060720		

Priority Applications (no., kind, date): US 2005701305 P 20050720; US 2006490717 A 20060720

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
---------------	------	-----	-----	------	--------------

US 20070021682	A1	EN	29	20	Related to Provisional	US 2005701305
----------------	----	----	----	----	------------------------	---------------

Alerting Abstract US A1

NOVELTY - The system (10) has a stimulation electrode configured to deliver an electrical stimulation signal to a nerve within a patient. A nerve root retractor (29) is equipped with a pressure sensor, where the pressure sensor is communicatively linked to a processing unit that calculates the pressure exerted on the nerve by the retractor. The processing unit includes a display, where the display provides one of alpha-numeric and graphic indicia relating to the calculated pressure. The indicium includes one of a maximum pressure value, time, value, color, two and three dimensional pressure maps.

DESCRIPTION - An **INDEPENDENT CLAIM** is also included for a method for assessing the pathology of a nerve.

USE - Used for performing a neurophysiologic assessment such as for detecting pedicle breaches, nerve proximity, nerve pathology (claimed), neuromuscular pathway status, and spinal cord health.

ADVANTAGE - The two-dimensional and three-dimensional pressure maps allow a surgeon to quickly assess the extent and duration of the pressure, the position, orientation, and center mass of the nerve root retractor on the nerve.

DESCRIPTION OF DRAWINGS - The drawing shows a perspective view of a system for performing a neurophysiologic assessment.

10 Neurophysiologic assessment performing system

12 Control unit

14 Patient module

16 EMG harness

18 EMG electrode

20 Common electrode

22 Return electrode

26 Accessory cable

27 Screw test assembly

29 Nerve root retractor

Title Terms /Index Terms/Additional Words: ASSESS; PERFORMANCE; SYSTEM; NERVE; PATHOLOGICAL; DISPLAY; ONE; ALPHA; NUMERIC; GRAPHIC; INDICIA; TWO; THREE; DIMENSION; PRESSURE; MAP

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date			
A61B-0005/04	A	I	F	B	20060101			
A61B-0005/05	A	I	L	B	20060101			
A61B-0005/04	C	I	F	B	20060101			
A61B-0005/05	C	I	L	B	20060101			

US Classification, Issued: 600546, 600554

File Segment: EngPI; EPI;
DWPI Class: S05; T01; P31
Manual Codes (EPI/S-X): S05-D01A2; S05-D01F; T01-J06A; T01-J10C2; T01-J10C4

20/5/6 (Item 6 from file: 350)

Fulltext available through: [Order File History](#)

Derwent WPIX

(c) 2008 The Thomson Corporation. All rights reserved.

0016536334 & & *Drawing available*

WPI Acc no: 2007-252561/200725

XRPX Acc No: N2007-187555

Nerve proximity and direction determination system for employing surgical instrument, has control unit determining direction from surgical accessory to nerve based on sensed response of nerve depolarized by stimulation

Patent Assignee: NUVASIVE INC (NUVA-N)

Inventor: BLEWETT J; FARQUHAR A; GHARIB J; KAULA N; MEDEIROS G

Patent Family (1 patents, 1 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20070016097	A1	20070118	US 2005182545	A	20050715	200725	B

Priority Applications (no., kind, date): US 2005182545 A 20050715

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
US 20070016097	A1	EN	40	26	

Alerting Abstract US A1

NOVELTY - The nerve proximity and direction determination system has a control unit (22) for electrically simulating one stimulation electrode on a surgical accessory, sensing a response of a nerve depolarized by stimulation and determining direction from the surgical accessory to the nerve based on the sensed response. The control unit communicates the determined direction to a user.

DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

3. surgical instrument; and
4. method of fixing direction of nerve from surgical instrument.

USE - For employing surgical instrument for accessing surgical target site.

ADVANTAGE - The nerve direction is determined automatically and easily for preventing the guesswork of the surgeon at the time of advancing the surgical instrument and the damage of the nerve.

DESCRIPTION OF DRAWINGS - The figure shows a perspective view of the surgical system capable of determining nerve direction.

20 Surgical system

22 Control unit

24 Patient module

34 Surgical access system

40 Touch screen display

Title Terms /Index Terms/Additional Words: NERVE; PROXIMITY; DIRECTION; DETERMINE; SYSTEM; EMPLOY; SURGICAL; INSTRUMENT; CONTROL; UNIT; ACCESSORY; BASED; SENSE; RESPOND; DEPOLARISE; STIMULATING

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date			
A61B-0018/04	A	I	L	B	20060101			
A61B-0005/04	A	I	F	B	20060101			
A61B-0018/04	C	I	L	B	20060101			
A61B-0005/04	C	I	F	B	20060101			

US Classification, Issued: 600546, 60632

File Segment: EngPI; EPI;

DWPI Class: S05; P31

Manual Codes (EPI/S-X): S05-B04A1; S05-D01A2

20/5/7 (Item 7 from file: 350)

Fulltext available through: [Order File History](#)

Derwent WPIX

(c) 2008 The Thomson Corporation. All rights reserved.

0016516238 & & *Drawing available*

WPI Acc no: 2007-232464/200723

XRAM Acc no: C2007-084640

XRFX Acc No: N2007-172832

Intervertebral disc replacing method, involves establishing operative corridor to intervertebral disc space by intra-operative neural monitoring and positioning intradiscal element within posterior region of disc space

Patent Assignee: NUVASIVE INC (NUVA-N)

Inventor: CORNWALL B G; CURRAN M; MARTINELLI S; PIMENTA L; SPANGLER J; CORNWALL B

Patent Family (2 patents, 114 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2007016247	A2	20070208	WO 2006US29196	A	20060728	200723	B
EP 1912578	A2	20080423	EP 2006788651	A	20060728	200831	E
			WO 2006US29196	A	20060728		

Priority Applications (no., kind, date): US 2005703645 P 20050728; US 2005721805 P 20050928

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes		
WO 2007016247	A2	EN	90	84			
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HN HR HU ID IL IN IS JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW						
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW						
EP 1912578	A2	EN			PCT Application	WO 2006US29196	

					Based on OPI patent	WO 2007016247
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR					

Alerting Abstract WO A2

NOVELTY - The method involves establishing an operative corridor to an intervertebral disc space e.g. lateral space, via a lateral surgical approach. The corridor is established by performing continuous or intermittent intra-operative neural monitoring through a psoas muscle. A lateral total disc replacement system (10) is implanted into an intervertebral disc space and the corridor is closed. An intradiscal element (16) is positioned within a posterior region of the disc space, when the disc replacement system is centered along the longitudinal midline and the lateral midline of the disc space.

DESCRIPTION - An **INDEPENDENT CLAIM** is also included for a total disc replacement system comprising anchor plates.

USE - Used for replacing a damaged intervertebral disc of the spine using a total disc replacement system (claimed).

ADVANTAGE - The method allows a surgeon to align the intradiscal element and a row of anchor elements with the lateral midline of the vertebral bodies to ensure a proper placement of the total disc replacement system. The method allows simple, safe and effective disengagement of an insertion tool after implanting the system. Unwanted migration of anchor plates from the optimal location is prevented after implantation. The system does not require the removal of the anterior longitudinal ligament (ALL) based on the lateral introduction into the disc space and

maintains proper structural support of the ALL, thus ensuring stability of the system.

DESCRIPTION OF DRAWINGS - The drawing shows a perspective view of a lateral total disc replacement (TDR) system and inserter.

10 Lateral total disc replacement system

12, 14 Anchor plate

13 Posterior side

16 Intradiscal element

36 Anti-migration features

38, 40 Grooves

44 Recesses

46 Aperture

Title Terms /Index Terms/Additional Words: INTERVERTEBRAL; DISC; REPLACE; METHOD; ESTABLISH; OPERATE; CORRIDOR; SPACE; INTRA; NEURAL; MONITOR; POSITION; ELEMENT; POSTERIOR; REGION

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date			
A61B-0017/56	A	I	F	B	20060101			
A61F-0002/44	A	I	F	B	20060101			
A61F-0002/44	A	I	L	B	20060101			
A61B-0017/56	C	I		B	20060101			
A61F-0002/44	C	I		B	20060101			
A61F-0002/44	C	I	F	B	20060101			

ECLA: A61F-002/44D2, A61F-002/46B7, A61F-002/46T

ICO: K61F-002:00A2, K61F-002:00A6B2A, K61F-002:00A6B2Z, K61F-002:00T1, K61F-002:00T1M2, K61F-002:00T1M3, K61F-002:00T33S, K61F-002:00T7, K61F-002:30P, K61F-002:30W2S, K61F-002:30W3, K61F-002:30Z, K61F-002:44D2M, K61F-002:46B28, K61F-002:46B44, K61F-002:46E

File Segment: CPI; EngPI

DWPI Class: A96; D22; P32

Manual Codes (CPI/A-N): A12-V02; D09-C01D

20/5/8 (Item 8 from file: 350)

Fulltext available through: [Order File History](#)

Derwent WPIX

(c) 2008 The Thomson Corporation. All rights reserved.

0016341307

WPI Acc no: 2007-057476/200706

Related WPI Acc No: 2007-045717

XRAM Acc no: C2007-020611

Use of an anti-tyrosine kinase A antibody for treating and/or preventing chronic pain e.g. neuropathic pain or oncological pain

Patent Assignee: LAY LINE GENOMICS SPA (LAYL-N)

Inventor: CATTANEO A; MARTINELLI S; PAVONE F; UGOLINI G; MARINELLI S

Patent Family (2 patents, 112 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2006131952	A1	20061214	WO 2006IT427	A	20060607	200706	B
EP 1890726	A1	20080227	EP 2006756318	A	20060607	200817	E
			WO 2006IT427	A	20060607		

Priority Applications (no., kind, date): IT 2005RM290 A 20050607

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
WO 2006131952	A1	EN	30	4	
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW				
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW				

EP 1890726	A1	EN			PCT Application	WO 2006IT427
					Based on OPI patent	WO 2006131952
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR					

Alerting Abstract WO A1

NOVELTY - Use of an anti-tyrosine kinase A (TrkA) antibody (I) capable of inhibiting the binding between nerve growth factor (NGF) and TrkA, for the preparation of a medicament for treating and/or preventing chronic pain.

DESCRIPTION - INDEPENDENT CLAIMS are included for:

5. an anti-TrkA antibody;

6. method of treatment and/or prevention of chronic pain in a subject comprising administering the anti-TrkA antibody; and
7. a kit comprising a composition containing an anti-TrkA antibody together with instructions directing administration of the composition.

ACTIVITY - Analgesic.

MECHANISM OF ACTION - Nerve growth factor and tyrosine kinase A binding inhibitor.

USE - (I) is useful for the preparation of a medicament for treating and/or preventing chronic pain (chronic inflammatory type) such as neuropathic pain or oncological pain, where the chronic pain is caused by pancreatitis, kidney stones, headaches, dysmenorrhoea, musculoskeletal pain, sprains, visceral pain, ovarian cysts, prostatic, cystitis, interstitial cystitis, post-operative pain, migraine, trigeminal neuralgia, pain from burns and/or wounds, pain associated with trauma, neuropathic pain, pain associated with musculoskeletal diseases, rheumatoid arthritis, osteoarthritis, ankylosing spondylitis, periarticular pathologies, oncological pain, pain from bone metastases or pain from HIV (claimed). (I) is useful to block the biological activity of TrkA. The ability of (I) to treat neuropathic pain was tested in mice using biological assays. The results showed that (I) exhibited significant effect on neuropathic pain.

ADVANTAGE - (I) has a long duration of action (claimed).

Title Terms /Index Terms/Additional Words: ANTI; TYROSINE; KINASE; ANTIBODY; TREAT; PREVENT; CHRONIC; PAIN; NEUROPATHY; ONCOLOGICAL

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date			
A61K-0039/395	A	I	F	B	20060101			
C07K-0016/22	A	I	L	B	20060101			
C07K-0016/28	A	I	L	B	20060101			
C07K-0016/18	C	I	L	B	20060101			
A61K-0039/395	C	I		B	20060101			
C07K-0016/18	C	I		B	20060101			

ECLA: C07K-016/22, C07K-016/28G

ICO: K61K-039:505, M07K-316:240, M07K-316:960

File Segment: CPI

DWPI Class: B04; D16

Manual Codes (CPI/A-N): B04-G01B; B04-G01C; B04-G03; B14-C01; B14-D06C; B14-L06; D05-H11

20/5/9 (Item 9 from file: 350)

Fulltext available through: [Order File History](#)

Derwent WPIX

(c) 2008 The Thomson Corporation. All rights reserved.

0016329548 & & *Drawing available*

WPI Acc no: 2007-045717/200705

Related WPI Acc No: 2007-057476

XRAM Acc no: C2007-015933

Use of anti-nerve growth factor (NGF) antibody capable of inhibiting binding between NGF and tyrosine kinase (Trk)A, for treating and/or preventing chronic pain

Patent Assignee: LAY LINE GENOMICS SPA (LAYL-N); PANGENETICS BV (PANG-N)

Inventor: CATTANEO A; MARTINELLI S; PAVONE F; UGOLINI G; MARINELLI S

Patent Family (4 patents, 112 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2006131951	A2	20061214	WO 2006IT426	A	20060607	200705	B
WO 2006131952	A8	20080110	WO 2006IT427	A	20060607	200805	E
EP 1893234	A2	20080305	EP 2006756317	A	20060607	200819	E
			WO 2006IT426	A	20060607		
AU 2006256387	A1	20061214	AU 2006256387	A	20060607	200827	E

Priority Applications (no., kind, date): IT 2005RM290 A 20050607

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
WO 2006131951	A2	EN	34	6	
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW				

Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW				
WO 2006131952	A8	EN			
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW				
Regional Designated	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE				

States,Original	IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
EP 1893234	A2	EN			PCT Application	WO 2006IT426
					Based on OPI patent	WO 2006131951
Regional Designated States,Original	AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR YU					
AU 2006256387	A1	EN			Based on OPI patent	WO 2006131951

Alerting Abstract WO A2

NOVELTY - The use of an anti-nerve growth factor (NGF) antibody capable of inhibiting the binding between NGF and tyrosine kinase (Trk)A for the preparation of a medicament for treating and/or preventing chronic pain.

DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

8. an anti-NGF antibody for use in the treatment of chronic pain;
9. treating or preventing (M1) chronic pain in a subject, involves administering to the subject, the anti-NGF antibody; and
10. a kit comprising a composition containing the antibody together with instructions directing administration of the composition to a subject in need of treatment of chronic pain thus treating chronic pain in subject.

ACTIVITY - Analgesic.

MECHANISM OF ACTION - NGF-Antagonist; TrkA receptor antagonist. Male CD1 mice subjected to chronic construction lesion model (CCI) of the sciatic nerve. The mice were treated with anti-NGF (alphaD11), anti-TrkA (MNAC13) antibodies, or saline (control). The analgesic action was determined. The result showed that the mice treated with alphaD11 or MNAC13 antibody had a significant analgesic effect, when compared to the control.

USE - The anti-NGF antibody is useful for inhibiting the binding between NGF and TrkA for the preparation of a medicament for treating and/or preventing chronic pain. The pain is chronic inflammatory type, or caused by pancreatitis, kidney stones, headaches, dysmenorrhea, musculoskeletal pain, sprains, visceral pain, ovarian cysts, prostatitis, cystitis, interstitial cystitis, post-operative pain, migraine, trigeminal neuralgia, pain from burns and/or wounds, pain associated with trauma, neuropathic pain, pain associated with musculoskeletal diseases, rheumatoid arthritis, osteoarthritis, ankylosing spondylitis, periarticular pathologies, oncological pain, pain from bone metastases, pain from HIV, and neuropathic pain or oncological pain. The method (M1) is useful for treating or preventing chronic pain in a subject (all claimed).

ADVANTAGE - The antibody exhibits prolonged analgesic effect.

DESCRIPTION OF DRAWINGS - The figure is a graph showing the effect of the anti-TrkA monoclonal antibody MNAC13 and anti-nerve growth factor (NGF) monoclonal antibody alphaD11 on neuropathic pain.

Title Terms /Index Terms/Additional Words: ANTI; NERVE; GROWTH; FACTOR; ANTIBODY ; CAPABLE; INHIBIT; BIND; TYROSINE; KINASE; TREAT; PREVENT; CHRONIC; PAIN

Class Codes

International Patent Classification

IPC

Class

Scope

Position

Status

Version Date

Level

A61K-0039/395	A	I	F	B	20060101		
C07K-0016/22	A	I	L	B	20060101		
C07K-0016/28	A	I	L	B	20060101		
A61K-0039/395	C	I		B	20060101		
A61K-0039/395	C	I	F	B	20060101		
C07K-0016/18	C	I		B	20060101		
C07K-0016/18	C	I	L	B	20060101		

ECLA: C07K-016/22, C07K-016/28G

ICO: K61K-039:505, M07K-316:240, M07K-316:960

File Segment: CPI

DWPI Class: B04; D16

Manual Codes (CPI/A-N): B04-G02; B14-C01; B14-D06C; B14-L06; D05-H11

20/5/10 (Item 10 from file: 350)

Fulltext available through: [Order File History](#)

Derwent WPIX

(c) 2008 The Thomson Corporation. All rights reserved.

0016063163 & & *Drawing available*

WPI Acc no: 2006-594794/200661

Related WPI Acc No: 2007-507098

XRPX Acc No: N2006-479497

Neurophysiologic assessing system for use during spine surgery, receives evoked neuromuscular response data from sensor, assess spinal cord health by identifying relationship between stimulation signal and neuromuscular response

Patent Assignee: NUVASIVE INC (NUVA-N)

Inventor: BALZER J; CALANCIE B; FARQUHAR A; GHARIB J; LAYMAN D

Patent Family (2 patents, 112 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2006084193	A2	20060810	WO 2006US3966	A	20060202	200661	B
EP 1846094	A2	20071024	EP 2006720282	A	20060202	200771	E
			WO 2006US3966	A	20060202		

Priority Applications (no., kind, date): US 2005649724 P 20050202; US 2005719897 P 20050922

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
---------------	------	-----	-----	------	--------------

WO 2006084193	A2	EN	89	36		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					

EP 1846094	A2	EN			PCT Application	WO 2006US3966
					Based on OPI patent	WO 2006084193
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR					

Alerting Abstract WO A2

NOVELTY - A sensor detects neuromuscular responses evoked by the simulation signal. A control unit (12) in communication with the stimulator and sensor, direct transmission of the stimulation signal, receives evoked neuromuscular response data from the sensor, assess spinal cord health by identifying relationship between the stimulation signal and neuromuscular response and communicates the relationship to user through alpha-numeric indicia and audio.

USE - For use during spine surgery.

ADVANTAGE - The system monitors the health of spinal cord while providing the ability to assess one of bone integrity, nerve proximity, neuromuscular pathway and nerve pathology during spine surgery.

DESCRIPTION OF DRAWINGS - The figure shows the perspective view of the surgical system.

10 surgical system

12 control unit

22 return electrode

21 stimulator

25 peripheral nerve electrodes

Title Terms /Index Terms/Additional Words: ASSESS; SYSTEM; SPINE; SURGICAL; RECEIVE; NEUROMUSCULAR; RESPOND; DATA; SENSE; CORD; HEALTH; IDENTIFY; RELATED ; STIMULATING; SIGNAL

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date		
A61N-0001/08	A	I	F	B	20060101		
A61N-0001/18	A	I	F	B	20060101		
A61N-0001/08	C	I	F	B	20060101		
A61N-0001/18	C	I		B	20060101		

File Segment: EngPI; EPI;
 DWPI Class: S05; P34
 Manual Codes (EPI/S-X): S05-B04B; S05-D01A2

20/5/11 (Item 11 from file: 350)
 Fulltext available through: [Order File History](#)
 Derwent WPIX
 (c) 2008 The Thomson Corporation. All rights reserved.

0016054830 & & *Drawing available*

WPI Acc no: 2006-586460/200660

XRPX Acc No: N2006-472322

Adequacy of disc space preparation assessing method used during anterior spine surgery, involves analyzing neuro muscular response to determine degree of electrical communication between surgical tool and adjacent neural structures

Patent Assignee: NUVASIVE INC (NUVA-N)

Inventor: BERTAGNOLI R; CORNWALL B G; GHARIB J; SCHERMERHORN R

Patent Family (1 patents, 111 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2006084194	A2	20060810	WO 2006US3967	A	20060202	200660	B

Priority Applications (no., kind, date): US 2005649732 P 20050202

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
WO 2006084194	A2	EN	35	30	
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW				
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW				

Alerting Abstract WO A2

NOVELTY - An electric stimulation signal is transmitted from a surgical tool to an annular tissue introduced into a

disc space (44) that is insulated from the adjacent neural structures (42). A muscle myotome associated with neural structures is monitored to detect a neuro muscular response evoked by the stimulation signal. The response is analyzed based on the stimulation signal to determine degree of electrical communication between surgical tool and neural structures.

DESCRIPTION - An INDEPENDENT CLAIM is included for a surgical system.

USE - For assessing adequacy of disc space preparation during anterior spine surgery, total disc replacement surgery, nucleus replacement surgery and interbody fusion.

ADVANTAGE - The nerve damage is prevented during distraction and compression of vertebral bodies.

DESCRIPTION OF DRAWINGS - The figure shows a cross-sectional view of the disc space probe.

40 annular tissue

42 nerve roots

44 disc space

74 probe

76 probe surface

78 handle

86 pin

Title Terms /Index Terms/Additional Words: ADEQUATE; DISC; SPACE; PREPARATION; ASSESS; METHOD; ANTERIOR; SPINE; SURGICAL; NEURO; MUSCLE; RESPOND; DETERMINE ; DEGREE; ELECTRIC; COMMUNICATE; TOOL; ADJACENT; NEURAL; STRUCTURE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date			
A61B-0005/04	A	I	F	B	20060101			
A61B-0005/04	C	I	F	B	20060101			

File Segment: EngPI; EPI;

DWPIClass: S05; P31

Manual Codes (EPI/S-X): S05-B04B; S05-D01F

20/5/12 (Item 12 from file: 350)

Fulltext available through: [Order File History](#)

Derwent WPIX

(c) 2008 The Thomson Corporation. All rights reserved.

0015990350 & & *Drawing available*

WPI Acc no: 2006-522019/200653

XRPX Acc No: N2006-418488

Nerve testing system during anterior lumbar surgery, identifies relation between stimulation signal with respect to neuromuscular response

Patent Assignee: NUVASIVE INC (NUVA-N)
 Inventor: FERREE B A; FOLEY K T; GHARIB J

Patent Family (1 patents, 111 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2006072050	A2	20060706	WO 2005US47576	A	20051230	200653	B

Priority Applications (no., kind, date): US 2004640863 P 20041230

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
WO 2006072050	A2	EN	44	15	
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KN KP KR KZ LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW				
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW				

Alerting Abstract WO A2

NOVELTY - A sensor detects neuromuscular response evoked by an electrical stimulation signal delivered from a surgical accessory (28). A control unit (12) identifies a relationship between the stimulation signal and respective neuromuscular response.

DESCRIPTION - An INDEPENDENT CLAIM is also included for method of conducting nerve testing.

USE - For testing nerve during anterior lumbar surgery, anterior disc replacement surgery, nucleus replacement surgery and interbody fusion surgery.

ADVANTAGE - The presence of hypogastric plexus are identified easily. The complex nerve in front of the lumbar spine is identified. The damage due to surgical accessory is prevented by tracking the plexus exactly.

DESCRIPTION OF DRAWINGS - The figure shows a perspective view of the surgical system.

10 surgical system

12 control unit

14 patient module

22 display

28 surgical accessory

Title Terms /Index Terms/Additional Words: NERVE; TEST; SYSTEM; ANTERIOR; LUMBAR ; SURGICAL;
 IDENTIFY; RELATED; STIMULATING; SIGNAL; RESPECT; NEUROMUSCULAR; RESPOND

Class Codes

International Patent Classification

IPC	Class Level Scope	Position	Status	Version Date
-----	-------------------	----------	--------	--------------

A61B-0005/04	A	I	F	B	20060101		
A61B-0005/04	C	I	L	B	20060101		

File Segment: EngPI; EPI;

DWPI Class: S05; T01; P31

Manual Codes (EPI/S-X): S05-B04B; S05-D01A2; T01-J06A; T01-J08A

20/5/13 (Item 13 from file: 350)

Fulltext available through: [Order File History](#)

Derwent WPIX

(c) 2008 The Thomson Corporation. All rights reserved.

0015736822 & & *Drawing available*

WPI Acc no: 2006-299714/200631

XRPX Acc No: N2006-254471

Surgical target site accessing system, has retractor assembly with set of blades which are opened to create customized operative corridor to site, where blade has electrode to stimulate and measure neuromuscular response

Patent Assignee: NUVASIVE INC (NUVA-N)

Inventor: ARAMBULA J; FINLEY E; MARTINELLI S; MILES P; PIMENTA L

Patent Family (3 patents, 110 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2006042241	A2	20060420	WO 2005US36454	A	20051011	200631	B
US 20070100212	A1	20070503	US 2004617498	P	20041008	200731	E
			US 2005720710	P	20050926		
			WO 2005US36454	A	20051011		
			US 2006529928	A	20060929		
WO 2006042241	A3	20071004				200765	E

Priority Applications (no., kind, date): US 2004617498 P 20041008; US 2005720710 P 20050926; WO 2005US36454 A 20051011; US 2006529928 A 20060929

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
WO 2006042241	A2	EN	83	60	
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KP KR KZ LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW				

Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
-------------------------------------	--

US 20070100212	A1	EN			Related to Provisional	US 2004617498
					Related to Provisional	US 2005720710
					C-I-P of application	WO 2005US36454
WO 2006042241	A3	EN				
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KP KR KZ LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					

Alerting Abstract WO A2

NOVELTY - The system has a retractor assembly with a set of blades (12, 16, 18) releasably coupled to a handle assembly. The blades are advanced simultaneously to a surgical target site in a closed position. At least one blade has electrode to stimulate nerve and sense a neuromuscular response of a muscle coupled to the depolarized nerve, thereby detecting existence of neural structures while establishing operative corridor.

DESCRIPTION - An INDEPENDENT CLAIM is also included for a method for accessing a surgical target site.

USE - Used for accessing a surgical target site.

ADVANTAGE - The system accesses an increased number of surgical target sites in a less invasive fashion by eliminating or greatly reducing the threat of contacting nerves or neural structures while establishing an operative corridor through or near tissues containing such nerves or neural structures.

DESCRIPTION OF DRAWINGS - The drawing shows a perspective view of a tissue retraction assembly forming part of a surgical access system in a fully retracted or open position.

10 Retractor assembly

12, 16, 18 Blades

15 Operative corridor

20 Handle assembly

22 Wide retractor extender

Title Terms /Index Terms/Additional Words: SURGICAL; TARGET; SITE; ACCESS; SYSTEM; RETRACT; ASSEMBLE; SET; BLADE; OPEN; CUSTOMISATION; OPERATE; CORRIDOR; ELECTRODE; STIMULATING; MEASURE; NEUROMUSCULAR; RESPOND

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date
-----	-------------	-------	----------	--------	--------------

A61B-0001/32	A	I	F	B	20060101		
A61M-0005/32	A	I	F	B	20060101		
A61B-0001/32	C	I	F	B	20060101		
A61B-0001/32	C	I		B	20060101		
A61M-0005/32	C	I	L	B	20060101		

US Classification, Issued: 600210

File Segment: EngPI; EPI;
DWPI Class: S05; P34; P31
Manual Codes (EPI/S-X): S05-B03; S05-D01A2

20/5/14 (Item 14 from file: 350)

Fulltext available through: [Order File History](#)

Derwent WPIX

(c) 2008 The Thomson Corporation. All rights reserved.

0015736801 & & *Drawing available*

WPI Acc no: 2006-299693/200631

XRPX Acc No: N2006-254455

Surgeon-directed surgical system for testing neuromuscular blockade level, has control unit controlling accessory to transmit stimulation signals under direction of surgeon and monitoring evoked responses from sensor

Patent Assignee: NUVASIVE INC (NUVA-N)

Inventor: FARQUHAR A; GHARIB J; HOWELL K; LAYMAN D; POTHIER A

Patent Family (2 patents, 111 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2006042075	A2	20060420	WO 2005US36089	A	20051007	200631	B
EP 1804660	A2	20070711	EP 2005804448	A	20051007	200746	E
			WO 2005US36089	A	20051007		

Priority Applications (no., kind, date): US 2004617142 P 20041007; US 2004622494 P 20041026; US 2005721424 P 20050927

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
WO 2006042075	A2	EN	91	34	
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KP KR KZ LC LK LR LS LT LU LV LY MA MD MG				

	MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW				
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW				
EP 1804660	A2	EN		PCT Application	WO 2005US36089

				Based on OPI patent	WO 2006042075
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR				

Alerting Abstract WO A2

NOVELTY - The system has an accessory cable to transmit a stimulation signal to a nerve forming part of a neuromuscular pathway. A control unit (12) is coupled to an accessory and a sensor. The control unit controls the accessory to transmit stimulation signals under direction of a surgeon, monitors evoked responses from the sensor, and assesses the pathway by identifying a relationship between the responses.

USE - Used for testing a neuromuscular blockade level in a patient before conducting nerve tests aimed at detecting pedicle breaches, nerve proximity, nerve direction and nerve pathology.

ADVANTAGE - The system quickly conveys the information in a straightforward and easy to understand manner, under the command of the surgeon based on their immediate need. The system reduces the challenges involved scheduling a neurophysiologist to assist with the surgery, and avoids an issue of making a patient wait while the schedules of the surgeon and neurophysiologist coincide. The system combines functional capability to perform nerve monitoring functions and the ability to ensure safety and accuracy of functions by assessing the neuromuscular pathway together in one easy to use system.

DESCRIPTION OF DRAWINGS - The drawing shows a perspective view of a surgeon-directed surgical system capable of assessing a state of a neuromuscular pathway and nerve testing functions.

12 Control unit

16 EMG harness

22 Return electrode

38 Probe unit

52 Electric coupling device

Title Terms /Index Terms/Additional Words: SURGEON; DIRECT; SURGICAL; SYSTEM; TEST; NEUROMUSCULAR; LEVEL; CONTROL; UNIT; ACCESSORY; TRANSMIT; STIMULATING; SIGNAL; DIRECTION; MONITOR; RESPOND; SENSE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date			
A61B-0005/04	A	I	L	B	20060101			
A61B-0005/05	A	I	F	B	20060101			

A61B-0005/04	C	I	L	B	20060101		
A61B-0005/05	C	I	F	B	20060101		
G01N	S				20060101		

File Segment: EngPI; EPI;

DWPI Class: S05; P31

Manual Codes (EPI/S-X): S05-B04B; S05-D01F

20/5/15 (Item 15 from file: 350)

Fulltext available through: [Order File History](#)

Derwent WPIX

(c) 2008 The Thomson Corporation. All rights reserved.

0015162327 & & *Drawing available*

WPI Acc no: 2005-511909/200552

XRPX Acc No: N2005-417739

Spinal target site access providing method for use during spinal surgery, involves piercing skin with a distal tip of initial dilator and advancing distal tip in lateral direction through psoas muscle toward spinal target site

Patent Assignee: NUVASIVE INC (NUVA-N)

Inventor: FINLEY E; MARTINELLI S; MILES P; PIMENTA L

Patent Family (1 patents, 1 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20050149035	A1	20050707	US 2003512594	P	20031017	200552	B
			US 2004967668	A	20041018		

Priority Applications (no., kind, date): US 2003512594 P 20031017; US 2004967668 A 20041018

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
US 20050149035	A1	EN	61	50	Related to Provisional US 2003512594

Alerting Abstract US A1

NOVELTY - The method involves inserting a portion of a finger through an incision and into a retroperitoneal space. A skin is pierced with a distal tip of an initial dilator through another incision and the tip is directed toward a psoas muscle. The distal tip is advanced in lateral direction through the psoas muscle toward a spinal target site, and a stimulation electrode coupled to the dilator detects nerves proximal to the dilator.

USE - Used for providing access to a spinal target site during spinal surgery.

ADVANTAGE - The method provides a lateral approach to the spine, thereby reducing the potential of damaging nerves while advancing instruments through the psoas muscle.

DESCRIPTION OF DRAWINGS - The drawing shows a perspective view of a tissue retraction assembly forming

part of a surgical access system.

12, 16, 18 Retractor blades

14 Linkage assembly

20 Handle assembly

24, 25 Retractor extenders

29 Sponding groove

Title Terms /Index Terms/Additional Words: SPINE; TARGET; SITE; ACCESS; METHOD; SURGICAL; PIERCE; SKIN; DISTAL; TIP; INITIAL; DILATED; ADVANCE; LATERAL; DIRECTION; THROUGH; MUSCLE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date			
A61B-0001/32	A	I		R	20060101			
A61B-0017/02	A	I		R	20060101			
A61B-0001/32	C	I		R	20060101			
A61B-0017/02	C	I		R	20060101			

US Classification, Issued: 60686

File Segment: EngPI; EPI;

DWPI Class: S05; P31; P32

Manual Codes (EPI/S-X): S05-B03; S05-B05

20/5/16 (Item 16 from file: 350)

Fulltext available through: [Order File History](#)

Derwent WPIX

(c) 2008 The Thomson Corporation. All rights reserved.

0014958127 & *Drawing available*

WPI Acc no: 2005-305910/200531

XRPX Acc No: N2005-250394

System for accessing annulus of intervertebral disc, has tissue distraction/retraction assemblies having electrodes to detect existence of neural structures before, during and after establishment of operative corridor to target site

Patent Assignee: FINLEY E (FINL-I); MARTINELLI S (MART-I); MILES P (MILE-I); NUVASIVE INC (NUVA-N)

Inventor: ARAMBULA J; BLEWETT J D; FARQUHAR A; FINLEY E; GHARIB J; KAULA N; MARTINELLI S; MILES P; BLEWETT J

Patent Family (7 patents, 107 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2005030318	A1	20050407	WO 2004US31768	A	20040927	200531	B
US 20060069315	A1	20060330	WO 2004US31768	A	20040927	200624	E
			US 2005137169	A	20050525		
EP 1680177	A1	20060719	EP 2004785182	A	20040927	200647	E
			WO 2004US31768	A	20040927		
AU 2004275877	A1	20050407	AU 2004275877	A	20040927	200677	E
US 7207949	B2	20070424	US 2005137169	A	20050525	200729	NCE
JP 2007512853	W	20070524	WO 2004US31768	A	20040927	200735	E
			JP 2006528306	A	20040927		
US 20070198062	A1	20070823	US 2003506136	P	20030925	200757	E
			WO 2004US31768	A	20040927		
			US 2005137169	A	20050525		
			US 2007789284	A	20070423		

Priority Applications (no., kind, date): US 2003506136 P 20030925; WO 2004US31768 A 20040927; US 2005137169 A 20050525; US 2007789284 A 20070423

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes
---------------	------	-----	-----	------	--------------

WO 2005030318	A1	EN	60	22		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
US 20060069315	A1	EN			Continuation of application	WO 2004US31768
EP 1680177	A1	EN			PCT Application	WO 2004US31768
					Based on OPI patent	WO 2005030318
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR					
AU 2004275877	A1	EN			Based on OPI patent	WO 2005030318
JP 2007512853	W	JA	23		PCT Application	WO 2004US31768
					Based on OPI patent	WO 2005030318
US 20070198062	A1	EN			Related to Provisional	US 2003506136
					Continuation of application	WO 2004US31768

				Division of application	US 2005137169
				Division of patent	US 7207949

Alerting Abstract WO A1

NOVELTY - The system has a tissue distraction assembly and a tissue retraction assembly (10) having electrodes for detecting the existence of neural structures before, during and after the establishment of operative corridor (15) to a surgical target site e.g. annulus of intervertebral disc.

DESCRIPTION - An INDEPENDENT CLAIM is also included for method of accessing surgical target site.

USE - For accessing surgical target site e.g. annulus of intervertebral disc to perform surgical procedures, by surgeon-driven electromyography (EMG) monitoring system.

ADVANTAGE - Reduces the pain, morbidity, thereby improving the patient's care, and reduces the cost.

DESCRIPTION OF DRAWINGS - The figure shows a perspective view of the tissue retraction assembly.

10 tissue retraction assembly

12,16 retractor blades

15 operative corridor

20 handle assembly

Title Terms /Index Terms/Additional Words: SYSTEM; ACCESS; ANNULAR; INTERVERTEBRAL; DISC; TISSUE; DISTRACTION; RETRACT; ASSEMBLE; ELECTRODE; DETECT; EXIST; NEURAL; STRUCTURE; AFTER; ESTABLISH; OPERATE; CORRIDOR; TARGET; SITE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date			
A61B-0001/32	A	I	F	B	20060101			
A61B-0001/32	A	I	L	B	20060101			
A61B-0017/02	A	I	L	B	20060101			
A61B-0017/02	A	I		R	20060101			
A61B-0017/34	A	I	F	B	20060101			
A61B-0017/56	A	I	L	B	20060101			
A61B-0005/0488	A	I		R	20060101			
A61B-0005/05	A	I	F	B	20060101			
A61B-0005/05	A	I		R	20060101			
A61B-0005/11	A	I		R	20060101			
A61N-0001/00	A	I	F	B	20060101			
A61N-0001/05	A	I		R	20060101			
A61N-0001/08	A	N		R	20060101			
A61N-0001/36	A	I	F	B	20060101			
A61B-0001/32	C	I	L	B	20060101			
A61B-0001/32	C	I		B	20060101			
A61B-0017/02	C	I	L	B	20060101			
A61B-0017/02	C	I		R	20060101			
A61B-0017/34	C	I	F	B	20060101			

A61B-0017/56	C	I	L	B	20060101		
A61B-0005/0488	C	I		R	20060101		
A61B-0005/05	C	I		B	20060101		
A61B-0005/05	C	I		R	20060101		
A61B-0005/11	C	I		R	20060101		
A61N-0001/05	C	I		R	20060101		
A61N-0001/08	C	N		R	20060101		
A61N-0001/36	C	I	F	B	20060101		

US Classification, Issued: 600219, 6072, 600546, 600554, 600546, 600214, 6072

File Segment: EngPI; EPI;

DWPI Class: S05; P31; P34

Manual Codes (EPI/S-X): S05-B04; S05-D01A2A

20/5/17 (Item 17 from file: 350)

Fulltext available through: [Order File History](#)

Derwent WPIX

(c) 2008 The Thomson Corporation. All rights reserved.

0014834271 & *Drawing available*

WPI Acc no: 2005-181962/200519

XRPX Acc No: N2005-151859

Pedicle integrity assessment performance method in spinal surgery, involves monitoring neuro-muscular responses due to application of stimulation signal to stimulation element, to assess whether nerves adjacent to pedicle are innervating

Patent Assignee: NUVASIVE INC (NUVA-N)

Inventor: ARAMBULA J; FARQUHAR A; FLANAGAN P; GHARIB J; KAULA N; MARTINELLI S; MILES P; BLEWETT J

Patent Family (5 patents, 107 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
---------------	------	------	--------------------	------	------	--------	------

WO 2005013805	A2	20050217	WO 2004US25550	A	20040805	200519	B
US 20060025703	A1	20060202	US 2003493024	P	20030805	200610	E
			US 2004540083	P	20040128		
			WO 2004US25550	A	20040805		
			US 200561184	A	20050218		
EP 1675508	A2	20060705	EP 2004780392	A	20040805	200644	E
			WO 2004US25550	A	20040805		
AU 2004263152	A1	20050217	AU 2004263152	A	20040805	200667	E

JP 2007501077	W	20070125	WO 2004US25550	A	20040805	200710	E
			JP 2006522771	A	20040805		

Priority Applications (no., kind, date): US 2003493024 P 20030805; US 2004540083 P 20040128; WO 2004US25550 A 20040805; US 200561184 A 20050218

Patent Details

Patent Details							
Patent Number	Kind	Lan	Pgs	Draw	Filing Notes		
WO 2005013805	A2	EN	60	33			
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW						
Regional Designated States,Original	AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW						
US 20060025703	A1	EN			Related to Provisional	US 2003493024	
					Related to Provisional	US 2004540083	
					Continuation of application	WO 2004US25550	
EP 1675508	A2	EN			PCT Application	WO 2004US25550	
					Based on OPI patent	WO 2005013805	
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR						
AU 2004263152	A1	EN			Based on OPI patent	WO 2005013805	
JP 2007501077	W	JA	27		PCT Application	WO 2004US25550	
					Based on OPI patent	WO 2005013805	

Alerting Abstract WO A2

NOVELTY - The method involves establishing electrical communication between a stimulation element and an interior of a pedicle hole, during pilot hole formation, pilot hole preparation or pedicle screw introduction. The neuro-muscular responses generated as a result of application of a stimulation signal to the stimulation element, are monitored so as to assess whether the nerves adjacent to the pedicle are innervating.

DESCRIPTION - An INDEPENDENT CLAIM is also included for system for performing pedicle integrity assessment.

USE - For performing pedicle integrity assessment during spinal surgery.

ADVANTAGE - Automatically detects and communicates to the user whether the integrity of the pedicle has been compromised during hole formation, hole preparation or screw introduction, thereby allowing surgeon to correct the screw placement. Hence the problems of patients being released to pain/ neurologic deficit due to unwanted contact between existing nerve root and misplaced pedicle screws, are avoided.

DESCRIPTION OF DRAWINGS - The figure shows a perspective view of the surgical system.

20 surgical system

22 control unit

35 electrical coupler

40 display
56 pedicle probe

Title Terms /Index Terms/Additional Words: INTEGRITY; ASSESS; PERFORMANCE; METHOD; SPINE; SURGICAL; MONITOR; NEURO; MUSCLE; RESPOND; APPLY; STIMULATING ; SIGNAL; ELEMENT; NERVE; ADJACENT

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date			
A61B-0017/70	A	N	L	B	20060101			
A61B-0017/88	A	N	L	B	20060101			
A61B-0019/00	A	I	F	B	20060101			
A61B-0005/04	A	I	F	B	20060101			
A61B-0005/04	A	I		R	20060101			
A61B-0005/0488	A	I	F	B	20060101			
A61B-0005/05	A	I	F	B	20060101			
A61N-0001/36	A	I	L	B	20060101			
A61B	S	I		R	20060101			
A61B-0017/70	C	N	L	B	20060101			
A61B-0017/88	C	N	L	B	20060101			
A61B-0019/00	C	I	F	B	20060101			
A61B-0005/04	C	I	L	B	20060101			
A61B-0005/04	C	I		R	20060101			
A61B-0005/0488	C	I	F	B	20060101			
A61B-0005/05	C	I	L	B	20060101			
A61N-0001/36	C	I	L	B	20060101			

US Classification, Issued: 600554

File Segment: EngPI; EPI;
DWPI Class: S05; P31
Manual Codes (EPI/S-X): S05-B04; S05-D01A2

20/5/18 (Item 18 from file: 350)

Fulltext available through: [Order File History](#)

Derwent WPIX

(c) 2008 The Thomson Corporation. All rights reserved.

0014403530 & & Drawing available

WPI Acc no: 2004-593291/200457

Related WPI Acc No: 2003-184257; 2003-333261; 2003-382307

XRPX Acc No: N2004-469246

System for determining nerve direction relative to surgical instrument, senses response of nerve depolarized by electrical stimulation, and determines nerve direction based upon sensed response

Patent Assignee: BLEWETT J (BLEW-I); NUVASIVE INC (NUVA-N)

Inventor: BLEWETT J; BLEWETT J D; FARQUHAR A; GHARIB J; KAULA N; ARAMBULA J; MARTINELLI S; SMITH W

Patent Family (7 patents, 99 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2004064634	A1	20040805	WO 2003US2056	A	20030115	200457	B
AU 2003214884	A1	20040813	AU 2003214884	A	20030115	200479	E
			WO 2003US2056	A	20030115		
AU 2003214884	A8	20040813	AU 2003214884	A	20030115	200559	E
			WO 2003US2056	A	20030115		
EP 1594401	A1	20051116	EP 2003710727	A	20030115	200575	E
			WO 2003US2056	A	20030115		
JP 2006512983	W	20060420	WO 2003US2056	A	20030115	200627	E

			JP 2004566886	A	20030115		
US 20070208227	A1	20070906	US 2006758938	P	20060112	200760	E
			US 2007652705	A	20070112		
AU 2008200066	A1	20080131	AU 2003214884	A	20030115	200827	NCE
			AU 2008200066	A	20080107		

Priority Applications (no., kind, date): WO 2002US22247 A 20020711; WO 2002US30617 A 20020925; WO 2002US35047 A 20021030; WO 2003US2056 A 20030115; AU 2008200066 A 20080107

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2004064634	A1	EN	74	26		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW					
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM ZW					
AU 2003214884	A1	EN			PCT Application	WO 2003US2056
					Based on OPI patent	WO 2004064634
AU 2003214884	A8	EN			PCT Application	WO 2003US2056
					Based on OPI patent	WO 2004064634
EP 1594401	A1	EN			PCT Application	WO 2003US2056

					Based on OPI patent	WO 2004064634
Regional Designated States,Original	AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					
JP 2006512983	W	JA	43		PCT Application	WO 2003US2056
					Based on OPI patent	WO 2004064634
US 20070208227	A1	EN			Related to Provisional	US 2006758938
AU 2008200066	A1	EN			Division of application	AU 2003214884

Alerting Abstract WO A1

NOVELTY - A controller (22) for electrically stimulating the stimulation electrodes of a surgical instrument (30), senses a response of a nerve depolarized by the stimulation so as to determine direction of the surgical accessory with respect to the nerve, and communicates determined direction to the user.

DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

11. surgical instrument;
12. nerve-stimulation threshold current levels ranges determining processing unit;
13. method of finding direction of nerve from surgical instrument.

USE - For determining nerve direction relative to surgical instrument such as K-wire, sequential dilating cannula system, distractor system and retractor system relative to nerve at surgical site, during nerve sensitive surgical procedures such as spine surgery and prostate or urology-related surgery.

ADVANTAGE - Allows the user of surgical instrument to actively avoid nerves and redirect the surgical instrument in order to successfully create the operative corridor without impinging or otherwise compromising the nerves. Enables the surgical instrument to pass through virtually any tissue with minimal risk of impinging or otherwise damaging associated neural structures within the tissue.

DESCRIPTION OF DRAWINGS - The figure shows a perspective view of the surgical system. (Drawing includes non-English language text).

20 surgical system

22 control unit

24 patient module

26 EMG harness

28 return electrode

30 surgical instrument

34 sequential dilation surgical access system

40 touch screen display

Title Terms /Index Terms/Additional Words: SYSTEM; DETERMINE; NERVE; DIRECTION; RELATIVE; SURGICAL; INSTRUMENT; SENSE; RESPOND; DEPOLARISE; ELECTRIC; STIMULATING; BASED

Class Codes

International Patent Classification

IPC	Class	Scope	Position	Status	Version Date
-----	-------	-------	----------	--------	--------------

	Level					
A61B-005/05			Main		"Version 7"	
A61B-0001/32	A	I	F	B	20060101	
A61B-0017/00	A	I		R	20060101	
A61B-0017/00	A	I	L	B	20060101	
A61B-0019/00	A	I	L	B	20060101	
A61B-0005/0488	A	I	L	B	20060101	
A61B-0005/05	A	I		R	20060101	
A61B-0005/05	A	I	F	B	20060101	
A61B-0001/32	C	I	F	B	20060101	
A61B-0017/00	C	I		B	20060101	
A61B-0017/00	C	I		R	20060101	
A61B-0005/05	C	I		B	20060101	
A61B-0005/05	C	I		R	20060101	

ECLA: A61B-017/00, A61B-005/05

ICO: K61B-017:00C1E

US Classification, Current Main: 600-219000; Secondary: 600-221000

US Classification, Issued: 600219, 600221

File Segment: EngPI; EPI;

DWPI Class: S02; S05; S01; T01; T04; P31

Manual Codes (EPI/S-X): S02-A08D; S05-B03; S05-B04A

20/5/19 (Item 19 from file: 350)

Fulltext available through: [Order File History](#)

Derwent WPIX

(c) 2008 The Thomson Corporation. All rights reserved.

0013102904 & & *Drawing available*

WPI Acc no: 2003-184257/200318

Related WPI Acc No: 2003-333261; 2003-382307; 2004-593291

XRPX Acc No: N2003-145084

Nerve proximity relative to surgical instrument, direction and pathology detecting system, uses relationship between stimulation signal and response

Patent Assignee: NUVASIVE INC (NUVA-N)

Inventor: BLEWETT J; GHARIB J; GHARIB J E; KAULA N; KAULA N F; MEDEIROS G

Patent Family (5 patents, 99 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2003005887	A2	20030123	WO 2002US22247	A	20020711	200318	B
EP 1417000	A2	20040512	EP 2002756464	A	20020711	200431	E

			WO 2002US22247	A	20020711		
AU 2002322472	A1	20030129	AU 2002322472	A	20020711	200452	E
JP 2005516638	W	20050609	WO 2002US22247	A	20020711	200538	E
			JP 2003511700	A	20020711		
US 20050182454	A1	20050818	WO 2002US22247	A	20020711	200555	E
			US 2004754899	A	20040109		

Priority Applications (no., kind, date): US 2001305041 A 20010711; WO 2002US22247 A 20020711; US 2004754899 A 20040109

Patent Details

Patent Details							
Patent Number	Kind	Lan	Pgs	Draw	Filing Notes		
WO 2003005887	A2	EN	22	16			
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW						
Regional Designated States,Original	AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW						
EP 1417000	A2	EN			PCT Application		WO 2002US22247
					Based on OPI patent		WO 2003005887
Regional Designated States,Original	AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR						
AU 2002322472	A1	EN			Based on OPI patent		WO 2003005887
JP 2005516638	W	JA	35		PCT Application		WO 2002US22247
					Based on OPI patent		WO 2003005887
US 20050182454	A1	EN			Continuation of application		WO 2002US22247

Alerting Abstract WO A2

NOVELTY - A surgical system (10) includes a control unit (12) with a touch-screen display (36) and a patient module (14) is connected to the control unit and contains all electrodes, signal conditioning circuitry, stimulator drive and steering circuitry and a retracted nerve root is electrically stimulated via stimulation electrodes at the end of a retractor (30), while the response of the muscle group is monitored. Analyses of the neuromuscular response are used to assess the degree to which the retraction has affected the nerve.

USE - Detecting nerve proximity, direction and pathology during surgery.

ADVANTAGE - Detecting direction of nerve relative to surgical instrument.

DESCRIPTION OF DRAWINGS - The drawing shows the system

12 Control unit

14 Patient module

30 Retractor

Title Terms /Index Terms/Additional Words: NERVE; PROXIMITY; RELATIVE; SURGICAL; INSTRUMENT; DIRECTION; PATHOLOGICAL; DETECT; SYSTEM; RELATED; STIMULATING; SIGNAL; RESPOND

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date			
A61B			Main		"Version 7"			
A61B-0019/00	A	I	L	R	20060101			
A61B-0005/0488	A	I		R	20060101			
A61B-0005/05	A	I	F	R	20060101			
A61N-0001/08	A	I		R	20060101			
A61N-0001/10	A	I		R	20060101			
A61N-0001/18	A	I		R	20060101			
A61B-0019/00	C	I	L	R	20060101			
A61B-0005/0488	C	I		R	20060101			
A61B-0005/05	C	I	F	R	20060101			
A61N-0001/08	C	I		R	20060101			
A61N-0001/10	C	I		R	20060101			
A61N-0001/18	C	I		R	20060101			

US Classification, Issued: 60748

File Segment: EngPI; EPI;

DWPI Class: S01; S05; T01; T04; P31; P34

Manual Codes (EPI/S-X): S01-J02A; S05-A02B; T01-J06A1; T04-F02A2

20/5/20 (Item 20 from file: 350)

Fulltext available through: [Order File History](#)

Derwent WPIX

(c) 2008 The Thomson Corporation. All rights reserved.

0011208856 & & *Drawing available*

WPI Acc no: 2002-147639/200219

Related WPI Acc No: 2001-389868

XRPX Acc No: N2002-111940

Nerve proximity and nerve status detection for use in monitoring nerve involves measuring responses of nerve to applied electrical signal that has predetermined current levels

Patent Assignee: NUVASIVE INC (NUVA-N)

Inventor: BLEWETT J J; KAULA N F; MARINO J F

Patent Family (5 patents, 94 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2001093759	A1	20011213	WO 2001US18606	A	20010608	200219	B
AU 200166793	A	20011217	AU 200166793	A	20010608	200225	E
EP 1292222	A1	20030319	EP 2001944376	A	20010608	200322	E
			WO 2001US18606	A	20010608		
KR 2003011882	A	20030211	KR 2002716772	A	20021209	200339	E
JP 2003534866	W	20031125	WO 2001US18606	A	20010608	200380	E
			JP 2002501334	A	20010608		

Priority Applications (no., kind, date): US 2000590632 A 20000608

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2001093759	A1	EN	32	10		
National Designated States,Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW					

Regional Designated States,Original	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
AU 200166793	A	EN			Based on OPI patent	WO 2001093759
EP 1292222	A1	EN			PCT Application	WO 2001US18606
					Based on OPI patent	WO 2001093759
Regional Designated States,Original	AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
JP 2003534866	W	JA	49		PCT Application	WO 2001US18606
					Based on OPI patent	WO 2001093759

Alerting Abstract WO A1

NOVELTY - Method for determining a nerve status involves placing an electrode near the nerve at step (32). An electrical signal having varying current levels is supplied to the electrode at step (34) to stimulate the nerve. The EMG response of the nerve for the applied current signal is measured at step (36). The EMG responses of the nerve are mapped for the applied electrical signal for a fixed latency. The status of the nerve based on the mapping of the responses is determined at step (42).

USE - Determine nerve status.

ADVANTAGE - It determines the relative proximity of the nerve to the proximity of the electrode.

DESCRIPTION OF DRAWINGS - The drawing shows a flow chart for a method for determining the nerve status.

Title Terms /Index Terms/Additional Words: NERVE; PROXIMITY; STATUS; DETECT; MONITOR; MEASURE; RESPOND; APPLY; ELECTRIC; SIGNAL; PREDETERMINED; CURRENT; LEVEL

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date		
A61B-005/0488			Main		"Version 7"		
A61B-0005/04	A	I		R	20060101		
A61B-0005/0488	A	I		R	20060101		
A61B-0005/04	C	I		R	20060101		
A61B-0005/0488	C	I		R	20060101		

File Segment: EngPI; EPI;

DWPI Class: S05; P31

Manual Codes (EPI/S-X): S05-D01A2; S05-D01A2A

20/5/21 (Item 21 from file: 350)

Fulltext available through: [Order File History](#)

Derwent WPIX

(c) 2008 The Thomson Corporation. All rights reserved.

0010775307 & & *Drawing available*

WPI Acc no: 2001-389868/200141

Related WPI Acc No: 2002-147639

XRFX Acc No: N2001-286818

Electromyography system for detecting presence of nerve adjacent to end of probe during surgical procedure including cutting through tissue

Patent Assignee: NUVASIVE INC (NUVA-N); NU VASIVE INC (NUVA-N)

Inventor: BLEWETT J J; KAULA N F; KELLEHER B S; MARINO J F; OWEN J H; OWENS J H; STONE C W; VAUGHN R H

Patent Family (15 patents, 93 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2001037728	A1	20010531	WO 2000US32329	A	20001124	200141	B
AU 200122517	A	20010604	AU 200122517	A	20001124	200153	E
EP 1237472	A1	20020911	EP 2000986240	A	20001124	200267	E
			WO 2000US32329	A	20001124		
US 6466817	B1	20021015	US 1999167416	P	19991124	200271	E
			US 2000590632	A	20000608		
KR 2002077346	A	20021011	KR 2002706649	A	20020524	200314	E

US 20030045808	A1	20030306	US 1999167416	P	19991124	200320	E
			US 2000590632	A	20000608		
			US 2002271388	A	20021016		
JP 2003514607	W	20030422	WO 2000US32329	A	20001124	200336	E
			JP 2001539347	A	20001124		
US 20040199084	A1	20041007	US 1999167416	P	19991124	200466	E
			US 2000722070	A	20001124		
			US 2004830189	A	20040421		
AU 779567	B2	20050127	AU 200122517	A	20001124	200524	E
US 7177677	B2	20070213	US 1999167416	P	19991124	200714	E
			US 2000590632	A	20000608		
			US 2002271388	A	20021016		
US 20070293782	A1	20071220	US 2000722070	A	20001124	200802	NCE
			US 2004830189	A	20040421		
			US 2007894987	A	20070821		
US 20080064976	A1	20080313	US 1999167416	P	19991124	200820	E
			US 2000722070	A	20001124		
			US 2004830189	A	20040421		
			US 2007981889	A	20071031		
US 20080064977	A1	20080313	US 1999167416	P	19991124	200820	E
			US 2000722070	A	20001124		
			US 2004830189	A	20040421		
			US 2007982238	A	20071031		
US 20080065178	A1	20080313	US 1999167416	P	19991124	200820	E
			US 2000722070	A	20001124		
			US 2007981891	A	20071031		
US 20080071191	A1	20080320	US 2000722070	A	20001124	200821	NCE
			US 2007981893	A	20071031		

Priority Applications (no., kind, date): US 1999167416 P 19991124; US 2000590632 A 20000608; US 2000722070 A 20001124; US 2002271388 A 20021016; US 2004830189 A 20040421; US 2007894987 A 20070821; US 2007981889 A 20071031; US 2007981891 A 20071031; US 2007982238 A 20071031; US 2007981893 A 20071031

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 2001037728	A1	EN	46	8		
National Designated States, Original	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW					
Regional	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					

Designated States,Original	MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
AU 200122517	A	EN			Based on OPI patent	WO 2001037728
EP 1237472	A1	EN			PCT Application	WO 2000US32329
					Based on OPI patent	WO 2001037728
Regional Designated States,Original	AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
US 6466817	B1	EN			Related to Provisional	US 1999167416
US 20030045808	A1	EN			Related to Provisional	US 1999167416
					Continuation of application	US 2000590632
					Continuation of patent	US 6466817
JP 2003514607	W	JA	47		PCT Application	WO 2000US32329
					Based on OPI patent	WO 2001037728
US 20040199084	A1	EN			Related to Provisional	US 1999167416
					Division of application	US 2000722070
AU 779567	B2	EN			Previously issued patent	AU 200122517
					Based on OPI patent	WO 2001037728
US 7177677	B2	EN			Related to Provisional	US 1999167416
					Continuation of application	US 2000590632
					Continuation of patent	US 6466817
US 20070293782	A1	EN			Division of application	US 2000722070
					Division of application	US 2004830189
US 20080064976	A1	EN			Related to Provisional	US 1999167416
					Division of application	US 2000722070
					Continuation of application	US 2004830189
US 20080064977	A1	EN			Related to Provisional	US 1999167416
					Division of application	US 2000722070
					Continuation of application	US 2004830189
US 20080065178	A1	EN			Related to Provisional	US 1999167416
					Continuation of application	US 2000722070
US 20080071191	A1	EN			Continuation of application	US 2000722070

Alerting Abstract WO A1

NOVELTY - A portion of the cauda equina is stimulated by passing a stimulus pulse with a known current level between an epidural stimulating electrode (11) and a return electrode (13) or between electrodes (12,14), positioned above the thoracic/lumbar junction. The neuromuscular responses are detected using electrodes positioned at myotome locations (ML1-ML3,MR1-MR3) corresponding to the spinal nerves using probes (20,22) with electrodes (21,23).

DESCRIPTION - INDEPENDENT CLAIMS are included for a method of detecting relative neuromuscular response values for spinal nerves and for methods of detecting, locating and determining status of a nerve .

USE - Detecting presence of spinal nerves during surgical procedures.

ADVANTAGE - Avoiding over-stimulation of nerves.

DESCRIPTION OF DRAWINGS - The drawing shows various components of the system.

11,12 Stimulating electrodes

12,14 Return electrodes

20,22 Probes

21,23 Detection electrodes

Title Terms /Index Terms/Additional Words: ELECTROMYOGRAPH; SYSTEM; DETECT; PRESENCE; NERVE; ADJACENT; END; PROBE; SURGICAL; PROCEDURE; CUT; THROUGH; TISSUE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date			
A61B-005/04; A61B-005/0488			Main		"Version 7"			
A61B-019/00			Secondary		"Version 7"			
A61B-0019/00	A	I	L	R	20060101			
A61B-0005/04	A	I		R	20060101			
A61B-0005/04	A	I	F	B	20060101			
A61B-0005/04	A	I	L	B	20060101			
A61B-0005/0488	A	I		R	20060101			
A61B-0005/0488	A	I	F	B	20060101			
A61B-0005/0492	A	N		R	20060101			
A61B-0005/05	A	I	F	B	20060101			
A61N-0001/05	A	I	L	B	20060101			
A61N-0001/05	A	I	F	B	20060101			
A61N-0001/18	A	I	F	B	20060101			
A61B-0019/00	C	I	L	R	20060101			
A61B-0005/04	C	I		R	20060101			
A61B-0005/04	C	I	F	B	20060101			
A61B-0005/04	C	I		B	20060101			
A61B-0005/0488	C	I		R	20060101			
A61B-0005/0488	C	I	F	B	20060101			
A61B-0005/05	C	I		B	20060101			
A61N-0001/05	C	I		B	20060101			
A61N-0001/18	C	I		B	20060101			

ECLA: A61B-005/04B, A61B-005/0488

ICO: K61B-005:0492

US Classification, Current Main: 600-546000, 600-554000; Secondary: 600-546000, 600-547000, 600-554000 , 607-118000

US Classification, Issued: 600546, 600546, 600554, 600546.0, 600546.0, 600546.0, 600554.0, 60799.0, 60632.0, 607117.0, 600554.0, 600546.0, 600554, 600547, 607118, 600546, 600546

File Segment: EngPI; EPI;

DWPI Class: S05; P31

Manual Codes (EPI/S-X): S05-B03; S05-D01A2

20/5/22 (Item 22 from file: 350)

Fulltext available through: [Order File History](#)

Derwent WPIX

(c) 2008 The Thomson Corporation. All rights reserved.

0010166420 & & *Drawing available*

WPI Acc no: 2000-475594/200041

Related WPI Acc No: 2000-053368; 2000-053403; 2000-062577; 2000-161234; 2000-256314; 2000-465601; 2000-465647; 2000-543652; 2000-656406; 2000-665184; 2000-665185; 2000-665186; 2001-327217; 2001-488078; 2001-637816; 2002-214238; 2002-214496; 2003-328171; 2003-370594

XRPX Acc No: N2000-354848

Nerve surveillance system for use in spinal surgery, includes cannula with expandable distal end having multiple inward tapering petals with nerve surveillance electrode disposed in each petal

Patent Assignee: NUVASIVE INC (NUVA-N); BLEWETT J J (BLEW-I); CHRISTOPHER T K (CHRI-I); KELLEHER B S (KELL-I); MARINO J F (MARI-I); STONE C W (STON-I)

Inventor: AHIGREN D K; BLEWETT J; BLEWETT J J; CHRISTOPHER K; CHRISTOPHER T K; KELLEHER B S; KELLEHER S; MARINO F; MARINO J F; STONE C W; STONE W; AHLGREN D K

Patent Family (14 patents, 85 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2000038574	A1	20000706	WO 1999US12651	A	19990604	200041	B
AU 199944226	A	20000731	AU 199944226	A	19990604	200050	E
EP 1146816	A1	20011024	EP 1999927283	A	19990604	200171	E
			WO 1999US12651	A	19990604		
US 6564078	B1	20030513	US 1998113651	P	19981223	200335	E
			US 1999120663	P	19990212		
			US 1999123268	P	19990308		
			US 1999325998	A	19990604		
JP 2003524452	W	20030819	WO 1999US12651	A	19990604	200356	E
			JP 2000590531	A	19990604		
US 20030195405	A1	20031016	US 1998113651	P	19981223	200369	E
			US 1999120663	P	19990219		
			US 1999123268	P	19990308		
			US 1999325998	A	19990604		
			US 2003431619	A	20030507		
EP 1146816	B1	20051012	EP 1999927283	A	19990604	200568	E
			WO 1999US12651	A	19990604		
DE 69927717	E	20060223	DE 69927717	A	19990604	200617	E
			EP 1999927283	A	19990604		
			WO 1999US12651	A	19990604		
US 7079883	B2	20060718	US 1998113651	P	19981223	200648	E
			US 1999120663	P	19990219		

			US 1999123268	P	19990308		
			US 1999325998	A	19990604		
			US 2003431619	A	20030507		
DE 69927717	T2	20060720	DE 69927717	A	19990604	200652	E
			EP 1999927283	A	19990604		
			WO 1999US12651	A	19990604		
US 20070049962	A1	20070301	US 1998113651	P	19981223	200718	E
			US 1999120663	P	19990219		
			US 1999123268	P	19990308		
			US 1999325998	A	19990604		
			US 2003431619	A	20030507		
			US 2006489020	A	20060718		
US 20080064945	A1	20080313	US 1999325998	A	19990604	200820	E
			US 2003431619	A	20030507		
			US 2006489020	A	20060718		
			US 2007982250	A	20071031		
US 20080065135	A1	20080313	US 2006489020	A	20060718	200820	NCE
			US 2007982185	A	20071031		
US 20080065144	A1	20080313	US 1998113651	P	19981223	200820	E
			US 1999120663	P	19990219		
			US 1999123268	P	19990308		
			US 1999325998	A	19990604		

			US 2003431619	A	20030507		
			US 2006489020	A	20060718		
			US 2007982254	A	20071031		

Priority Applications (no., kind, date): US 1998113651 P 19981223; US 1999120663 P 19990212; US 1999120663 P 19990219; US 1999123268 P 19990308; US 1999325998 A 19990604; US 2003431619 A 20030507; US 2006489020 A 20060718; US 2007982185 A 20071031; US 2007982250 A 20071031; US 2007982254 A 20071031

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes		
WO 2000038574	A1	EN	59	33			
National Designated States,Original	AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW						
Regional Designated States,Original	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW						
AU 199944226	A	EN			Based on OPI patent		WO 2000038574
EP 1146816	A1	EN			PCT Application		WO 1999US12651

					Based on OPI patent	WO 2000038574
Regional Designated States,Original	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
US 6564078	B1	EN			Related to Provisional	US 1998113651
					Related to Provisional	US 1999120663
					Related to Provisional	US 1999123268
JP 2003524452	W	JA	56		PCT Application	WO 1999US12651
					Based on OPI patent	WO 2000038574
US 20030195405	A1	EN			Related to Provisional	US 1998113651
					Related to Provisional	US 1999120663
					Related to Provisional	US 1999123268
					Division of application	US 1999325998
					Division of patent	US 6564078
EP 1146816	B1	EN			PCT Application	WO 1999US12651
					Based on OPI patent	WO 2000038574
Regional Designated States,Original	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
DE 69927717	E	DE			Application	EP 1999927283
					PCT Application	WO 1999US12651
					Based on OPI patent	EP 1146816
					Based on OPI patent	WO 2000038574
US 7079883	B2	EN			Related to Provisional	US 1998113651
					Related to Provisional	US 1999120663

					Related to Provisional	US 1999123268
					Division of application	US 1999325998
					Division of patent	US 6564078
DE 69927717	T2	DE			Application	EP 1999927283
					PCT Application	WO 1999US12651
					Based on OPI patent	EP 1146816
					Based on OPI patent	WO 2000038574
US 20070049962	A1	EN			Related to Provisional	US 1998113651
					Related to Provisional	US 1999120663
					Related to Provisional	US 1999123268
					Division of application	US 1999325998
					Division of application	US 2003431619
					Division of patent	US 6564078
					Division of patent	US 7079883
US 20080064945	A1	EN			Division of application	US 1999325998
					Division of application	US 2003431619
					Continuation of application	US 2006489020
					Division of patent	US 6564078
					Division of patent	US 7079883

US 20080065135	A1	EN			Continuation of application	US 2006489020
US 20080065144	A1	EN			Related to Provisional	US 1998113651
					Related to Provisional	US 1999120663
					Related to Provisional	US 1999123268
					Division of application	US 1999325998
					Division of application	US 2003431619
					Continuation of application	US 2006489020
					Division of patent	US 6564078
					Division of patent	US 7079883

Alerting Abstract WO A1

NOVELTY - The system includes a cannula having an expandable tip (113) at the distal end. The tip has multiple inward tapering petals (114) arranged radially, each petal disposed with a nerve surveillance electrode (116). The electrodes are adapted for electromyography or to cauterize blood vessels.

DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

C. an intervertebral space accessing method; and

D. an intervertebral space accessing system.

USE - For spinal surgery.

ADVANTAGE - The system enables exact locating of para-spiral nerves so that damage caused to the para-spiral nerves is prevented. As the electrodes cauterize blood vessels, clear vision inside an intervertebral disk is assured after surgical entry.

DESCRIPTION OF DRAWINGS - The figure shows a perspective distal view of the nerve surveillance system.

113 Expandable tip

114 Petals

116 Nerve surveillance electrode

Title Terms /Index Terms/Additional Words: NERVE; SURVEILLANCE; SYSTEM; SPINE; SURGICAL; CANNULA; EXPAND; DISTAL; END; MULTIPLE; INWARD; TAPER; PETAL; ELECTRODE; DISPOSABLE

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date		
A61B-005/0408			Main		"Version 7"		
A61B-017/56; A61B-018/04; A61B-005/0478; A61B-005/0492			Secondary		"Version 7"		
A61B-0017/00	A	N		R	20060101		
A61B-0017/17	A	I		R	20060101		
A61B-0017/34	A	I	L	B	20060101		
A61B-0017/34	A	I	L		20060101		

A61B-0017/34	A	I		R	20060101		
A61B-0017/56	A	I	L	R	20060101		
A61B-0018/04	A	I	L	R	20060101		
A61B-0018/14	A	I	L	B	20060101		
A61B-0018/14	A	I	L		20060101		
A61B-0005/04	A	I	F	B	20060101		
A61B-0005/0408	A	I	F	R	20060101		
A61B-0005/0478	A	I	L	R	20060101		
A61B-0005/0488	A	I	L	B	20060101		
A61B-0005/0488	A	I	L		20060101		
A61B-0005/0492	A	I	F	B	20060101		
A61B-0005/0492	A	I	F		20060101		
A61B-0005/0492	A	I	L	R	20060101		
A61M-0029/00	A	I	F	B	20060101		
A61N-0001/05	A	I	L	B	20060101		
A61N-0001/05	A	I	L		20060101		
A61B-0017/08	A	I	L	B	20060101		
A61B-0017/28	A	I	F	B	20060101		
A61B-0005/04	A	I	L	B	20060101		
A61N-0001/04	A	I	F	B	20060101		
A61B-0017/00	C	N		R	20060101		
A61B-0017/16	C	I		R	20060101		
A61B-0017/34	C	I		R	20060101		
A61B-0017/56	C	I	L	R	20060101		
A61B-0018/04	C	I	L	R	20060101		
A61B-0005/04	C	I	L	B	20060101		
A61B-0005/0408	C	I	F	R	20060101		
A61B-0005/0476	C	I	L	R	20060101		
A61B-0005/0488	C	I	F	B	20060101		
A61B-0005/0488	C	I	F		20060101		
A61B-0005/0488	C	I	L	R	20060101		
A61M-0029/00	C	I	F	B	20060101		
A61B-0017/03	C	I		B	20060101		
A61B-0017/28	C	I		B	20060101		
A61B-0005/04	C	I		B	20060101		
A61M-0029/00	C	I		B	20060101		
A61N-0001/04	C	I		B	20060101		

ECLA: A61B-005/0492, A61B-017/17S4, A61B-017/34G

ICO: K61B-017:00+PREFERRED, K61B-017:34G4H, K61B-017:34R2B

US Classification, Current Main: 600-373000, 606-198000; Secondary: 128-898000

US Classification, Issued: 600373, 606198, 600373.0, 606190.0, 606198.0, 128898.0, 600373.0, 606151.0, 600373, 600546, 600554, 607116, 607117, 600373, 128898

File Segment: EngPI; EPI;
 DWPI Class: S05; P31; P33; P34; P32
 Manual Codes (EPI/S-X): S05-B03; S05-B04; S05-B05

20/5/23 (Item 23 from file: 350)

Fulltext available through: [Order File History](#)

Derwent WPIX

(c) 2008 The Thomson Corporation. All rights reserved.

0009206786

WPI Acc no: 1999-131855/199911

Related WPI Acc No: 2006-636076; 2007-420507; 2007-440612; 2007-446239

XRAM Acc no: C1999-038493

Treatment of urological and related disorders - using neurotoxin

Patent Assignee: KAULA N F (KAUL-I); SCHMIDT R A (SCHM-I); UNIV COLORADO (COLS); UNIV TECHNOLOGY CORP (UYTE-N)

Inventor: KAULA F; KAULA N; KAULA N F; SCHMIDT A; SCHMIDT R; SCHMIDT R A

Patent Family (62 patents, 79 & countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 1999003483	A1	19990128	WO 1998US14625	A	19980715	199911	B
AU 199883007	A	19990210	AU 199883007	A	19980715	199925	E
EP 1011695	A1	20000628	EP 1998933345	A	19980715	200035	E
			WO 1998US14625	A	19980715		
CN 1270527	A	20001018	CN 1998809129	A	19980715	200103	E
JP 2001510163	W	20010731	WO 1998US14625	A	19980715	200148	E
			JP 2000502781	A	19980715		
KR 2001021941	A	20010315	KR 2000700506	A	20000115	200159	E
AU 743085	B	20020117	AU 199883007	A	19980715	200219	E
US 20020025327	A1	20020228	US 199752580	P	19970715	200220	E
			WO 1998US14625	A	19980715		
			US 2000463040	A	20000117		
			US 2001978982	A	20011015		
US 6365164	B1	20020402	US 199752580	P	19970715	200226	E
			WO 1998US14625	A	19980715		
			US 2000463040	A	20000117		
US 6667041	B2	20031223	US 199752580	P	19970715	200408	E
			WO 1998US14625	A	19980715		
			US 2000463040	A	20000117		
			US 2001978982	A	20011015		
CN 1480212	A	20040310	CN 1998809129	A	19980715	200437	E
			CN 2003110471	A	19980715		
US 20040126380	A1	20040701	US 199752580	P	19970715	200444	E

			WO 1998US14625	A	19980715		
			US 2000463040	A	20000117		
			US 2001978982	A	20011015		
			US 2003685995	A	20031014		
US 20040180065	A1	20040916	US 199752580	P	19970715	200461	E
			WO 1998US14625	A	19980715		
			US 2000463040	A	20000117		
			US 2001978982	A	20011015		
			US 2003655889	A	20030904		
EP 1475099	A1	20041110	EP 1998933345	A	19980715	200473	E
			EP 200419371	A	19980715		
US 20040259788	A1	20041223	US 199752580	P	19970715	200504	E
			WO 1998US14625	A	19980715		
			US 2000463040	A	20000117		
			US 2001978982	A	20011015		
			US 2003745332	A	20031222		
EP 1502601	A1	20050202	EP 1998933345	A	19980715	200510	E
			EP 200426167	A	19980715		
US 20050048084	A1	20050303	US 199752580	P	19970715	200517	E

			WO 1998US14625	A	19980715		
			US 2000463040	A	20000117		
			US 2001978982	A	20011015		
			US 2003685995	A	20031014		
			US 2004778924	A	20040213		
US 20050049175	A1	20050303	US 199752580	P	19970715	200517	E
			WO 1998US14625	A	19980715		
			US 2000463040	A	20000117		
			US 2001978982	A	20011015		
			US 2003685995	A	20031014		
			US 2004778948	A	20040213		
JP 2005089478	A	20050407	JP 2000502781	A	19980715	200524	E
			JP 2004367500	A	20041220		
JP 2005089479	A	20050407	JP 2000502781	A	19980715	200524	E
			JP 2004367501	A	20041220		
US 20050112147	A1	20050526	US 2001978982	A	20011015	200535	NCE
			US 2003685995	A	20031014		
			US 2004981015	A	20041103		
US 20050159337	A1	20050721	US 199752580	P	19970715	200548	E
			WO 1998US14625	A	19980715		
			US 2000463040	A	20000117		
			US 2001978982	A	20011015		
			US 2003685995	A	20031014		
			US 200577895	A	20050311		
JP 3692033	B2	20050907	WO 1998US14625	A	19980715	200558	E

			JP 2000502781	A	19980715		
CA 2505930	A1	19990128	CA 2296720	A	19980715	200560	E
			CA 2505930	A	19980715		
CA 2505933	A1	19990128	CA 2296720	A	19980715	200560	E
			CA 2505933	A	19980715		
CN 1135988	C	20040128	CN 1998809129	A	19980715	200571	E
CN 1651074	A	20050810	CN 2003110471	A	19980715	200572	E
			CN 200410096226	A	19980715		
EP 1475099	B1	20051228	EP 1998933345	A	19980715	200605	E
			EP 200419371	A	19980715		
CA 2521392	A1	19990128	CA 2296720	A	19980715	200609	E
			CA 2521392	A	19980715		
DE 69833059	E	20060202	DE 69833059	A	19980715	200615	E
			EP 200419371	A	19980715		
US 7001602	B2	20060221	US 199752580	P	19970715	200615	E
			US 2000463040	A	20000117		
			US 2001978982	A	20011015		
			US 2003685995	A	20031014		
JP 2006063089	A	20060309	JP 2004367500	A	19980715	200618	E
			JP 2005331664	A	20051116		
EP 1637157	A1	20060322	EP 1998933345	A	19980715	200621	E
			EP 200524444	A	19980715		

EP 1011695	B1	20060322	EP 1998933345	A	19980715	200622	E
			WO 1998US14625	A	19980715		
			EP 200419371	A	20040816		
			EP 200426167	A	20041104		
			EP 200524444	A	20051109		
			EP 200524445	A	20051109		
JP 2006104221	A	20060420	JP 2004367501	A	19980715	200627	E
			JP 20062227	A	20060110		
DE 69833942	E	20060511	DE 69833942	A	19980715	200634	E
			EP 1998933345	A	19980715		
			WO 1998US14625	A	19980715		
EP 1658858	A2	20060524	EP 1998933345	A	19980715	200635	E
			EP 200524445	A	19980715		
KR 2005051721	A	20050601	WO 1998US14625	A	19980715	200639	E
			KR 2005708752	A	20050516		
KR 2005051722	A	20050601	WO 1998US14625	A	19980715	200639	E
			KR 2005708756	A	20050516		
ES 2255025	T3	20060616	EP 200419371	A	19980715	200641	E
ES 2256945	T3	20060716	EP 1998933345	A	19980715	200648	E
KR 2005114284	A	20051205	WO 1998US14625	A	19980715	200650	E
			KR 2005720256	A	20051025		
DE 69833059	T2	20060803	DE 69833059	A	19980715	200651	E

			EP 200419371	A	19980715		
DE 69833942	T2	20060907	DE 69833942	A	19980715	200660	E
			EP 1998933345	A	19980715		
			WO 1998US14625	A	19980715		
EP 1502601	B1	20060913	EP 1998933345	A	19980715	200661	E
			EP 200426167	A	19980715		
DE 69835911	E	20061026	DE 69835911	A	19980715	200672	E
			EP 200426167	A	19980715		
CN 1803189	A	20060719	CN 200510113878	A	19980715	200673	E
KR 544060	B1	20060123	WO 1998US14625	A	19980715	200682	E
			KR 2000700506	A	20000115		
US 7153514	B2	20061226	US 199752580	P	19970715	200702	E
			WO 1998US14625	A	19980715		
			US 2000463040	A	20000117		
			US 2001978982	A	20011015		
			US 2003745332	A	20031222		
DE 69835911	T2	20070111	DE 69835911	A	19980715	200707	E
			EP 200426167	A	19980715		
CA 2570406	A1	19990128	CA 2296720	A	19980715	200718	E
			CA 2570406	A	19980715		
ES 2268567	T3	20070316	EP 200426167	A	19980715	200722	E
JP 2007091756	A	20070412	JP 2004367500	A	19980715	200726	E

			JP 20072407	A	20070110		
KR 609197	B1	20060802	WO 1998US14625	A	19980715	200728	E
			KR 2005720256	A	20051025		
JP 2007126477	A	20070524	JP 2004367500	A	19980715	200735	E
			JP 20072406	A	20070110		
JP 3955061	B2	20070808	JP 2000502781	A	19980715	200754	E
			JP 2004367500	A	20041220		
CN 1939531	A	20070404	CN 200610100671	A	19980715	200757	E
CN 1321683	C	20070620	CN 200410096226	A	19980715	200808	E
CA 2296720	C	20080129	CA 2296720	A	19980715	200812	E
			WO 1998US14625	A	19980715		
CA 2505930	C	20080129	CA 2296720	A	19980715	200812	E
			CA 2505930	A	19980715		
JP 4053559	B2	20080227	JP 2004367500	A	19980715	200817	E
			JP 2005331664	A	20051116		
KR 730422	B1	20070619	WO 1998US14625	A	19980715	200833	E
			KR 2005708752	A	20050516		

Priority Applications (no., kind, date): US 199752580 P 19970715; WO 1998US14625 A 19980715; US 2000463040 A 20000117; US 2001978982 A 20011015; US 2003655889 A 20030904; US 2003685995 A 20031014; US 2003745332 A 20031222; US 2004778924 A 20040213; US 2004778948 A 20040213; US

2004981015 A 20041103; US 200577895 A 20050311

Patent Details

Patent Number	Kind	Lan	Pgs	Draw	Filing Notes	
WO 1999003483	A1	EN	19	0		
National Designated States,Original	AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW					
Regional Designated States,Original	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW					
AU 199883007	A	EN			Based on OPI patent	WO 1999003483
EP 1011695	A1	EN			PCT Application	WO 1998US14625
					Based on OPI patent	WO 1999003483
Regional Designated States,Original	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
JP 2001510163	W	JA	20		PCT Application	WO 1998US14625
					Based on OPI patent	WO 1999003483
AU 743085	B	EN			Previously issued patent	AU 9883007
					Based on OPI patent	WO 1999003483

US 20020025327	A1	EN			Related to Provisional	US 199752580
					Continuation of application	WO 1998US14625
					Continuation of application	US 2000463040
US 6365164	B1	EN			Related to Provisional	US 199752580
					PCT Application	WO 1998US14625
					Based on OPI patent	WO 1999003483
US 6667041	B2	EN			Related to Provisional	US 199752580
					Continuation of application	WO 1998US14625
					Continuation of application	US 2000463040
					Continuation of patent	US 6365164
CN 1480212	A	ZH			Division of application	CN 1998809129
US 20040126380	A1	EN			Related to Provisional	US 199752580
					Continuation of application	WO 1998US14625
					Continuation of application	US 2000463040
					Continuation of application	US 2001978982
					Continuation of patent	US 6365164
					Continuation of patent	US 6667041
US 20040180065	A1	EN			Related to Provisional	US 199752580
					Continuation of application	WO 1998US14625
					Continuation of application	US 2000463040
					C-I-P of application	US 2001978982
					Continuation of patent	US 6365164

					C-I-P of patent	US 6667041
EP 1475099	A1	EN			Division of application	EP 1998933345
					Division of patent	EP 1011695
Regional Designated States,Original	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
US 20040259788	A1	EN			Related to Provisional	US 199752580
					Continuation of application	WO 1998US14625
					Continuation of application	US 2000463040
					Continuation of application	US 2001978982
					Continuation of patent	US 6365164
					Continuation of patent	US 6667041
EP 1502601	A1	EN			Division of application	EP 1998933345
					Division of patent	EP 1011695
Regional Designated States,Original	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
US 20050048084	A1	EN			Related to Provisional	US 199752580
					Continuation of application	WO 1998US14625
					Continuation of application	US 2000463040
					Continuation of application	US 2001978982
					C-I-P of application	US 2003685995

					Continuation of patent	US 6365164
					Continuation of patent	US 6667041
US 20050049175	A1	EN			Related to Provisional	US 199752580
					Continuation of application	WO 1998US14625
					Continuation of application	US 2000463040
					Continuation of application	US 2001978982
					C-I-P of application	US 2003685995
					Continuation of patent	US 6365164
					Continuation of patent	US 6667041
JP 2005089478	A	JA	12		Division of application	JP 2000502781
JP 2005089479	A	JA	12		Division of application	JP 2000502781
US 20050112147	A1	EN			Continuation of application	US 2001978982
					Continuation of application	US 2003685995
					Continuation of patent	US 6667041
US 20050159337	A1	EN			Related to Provisional	US 199752580
					Continuation of application	WO 1998US14625
					Continuation of application	US 2000463040
					Continuation of application	US 2001978982
					Continuation of application	US 2003685995
					Continuation of patent	US 6365164
					Continuation of patent	US 6667041
JP 3692033	B2	JA	10		PCT Application	WO 1998US14625

				Previously issued patent	JP 2001510163
				Based on OPI patent	WO 1999003483
CA 2505930	A1	EN		Division of application	CA 2296720
CA 2505933	A1	EN		Division of application	CA 2296720
CN 1651074	A	ZH		Division of application	CN 2003110471
EP 1475099	B1	EN		Division of application	EP 1998933345
				Division of patent	EP 1011695
Regional Designated States,Original	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE				
CA 2521392	A1	EN		Division of application	CA 2296720
DE 69833059	E	DE		Application	EP 200419371
				Based on OPI patent	EP 1475099
US 7001602	B2	EN		Related to Provisional	US 199752580
				Continuation of application	US 2000463040
				Continuation of application	US 2001978982
				Continuation of patent	US 6365164
				Continuation of patent	US 6667041
JP 2006063089	A	JA	12	Division of application	JP 2004367500
EP 1637157	A1	EN		Division of application	EP 1998933345

				Division of patent	EP 1011695
Regional Designated States,Original	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE				
EP 1011695	B1	EN		PCT Application	WO 1998US14625
				Related to application	EP 200419371
				Related to application	EP 200426167
				Related to application	EP 200524444
				Related to application	EP 200524445
				Related to patent	EP 1475099
				Related to patent	EP 1502601
				Related to patent	EP 1637157
				Based on OPI patent	WO 1999003483
Regional Designated States,Original	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE				
JP 2006104221	A	JA	12	Division of application	JP 2004367501
DE 69833942	E	DE		Application	EP 1998933345
				PCT Application	WO 1998US14625
				Based on OPI patent	EP 1011695
				Based on OPI patent	WO 1999003483
EP 1658858	A2	EN		Division of application	EP 1998933345
				Division of patent	EP 1011695
Regional	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE				

Designated States,Original						
KR 2005051721	A	KO			PCT Application	WO 1998US14625
					Based on OPI patent	WO 1999003483
KR 2005051722	A	KO			PCT Application	WO 1998US14625
					Based on OPI patent	WO 1999003483
ES 2255025	T3	ES			Application	EP 200419371
					Based on OPI patent	EP 1475099
ES 2256945	T3	ES			Application	EP 1998933345
					Based on OPI patent	EP 1011695
KR 2005114284	A	KO			PCT Application	WO 1998US14625
					Based on OPI patent	WO 1999003483
DE 69833059	T2	DE			Application	EP 200419371
					Based on OPI patent	EP 1475099
DE 69833942	T2	DE			Application	EP 1998933345
					PCT Application	WO 1998US14625
					Based on OPI patent	EP 1011695
					Based on OPI patent	WO 1999003483
EP 1502601	B1	EN			Division of application	EP 1998933345
					Division of patent	EP 1011695
Regional Designated States,Original	AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
DE 69835911	E	DE			Application	EP 200426167
					Based on OPI patent	EP 1502601
KR 544060	B1	KO			PCT Application	WO 1998US14625

					Based on OPI patent	WO 1999003483
US 7153514	B2	EN			Related to Provisional	US 199752580
					Continuation of application	WO 1998US14625
					Continuation of application	US 2000463040
					Continuation of application	US 2001978982
					Continuation of patent	US 6365164
					Continuation of patent	US 6667041
DE 69835911	T2	DE			Application	EP 200426167
					Based on OPI patent	EP 1502601
CA 2570406	A1	EN			Division of application	CA 2296720
ES 2268567	T3	ES			Application	EP 200426167
					Based on OPI patent	EP 1502601
JP 2007091756	A	JA	14		Division of application	JP 2004367500
KR 609197	B1	KO			PCT Application	WO 1998US14625
					Previously issued patent	KR 2005114284
					Based on OPI patent	WO 1999003483
JP 2007126477	A	JA	12		Division of application	JP 2004367500
JP 3955061	B2	JA	12		Division of application	JP 2000502781

				Previously issued patent	JP 2005089478
CA 2296720	C	EN		PCT Application	WO 1998US14625
				Based on OPI patent	WO 1999003483
CA 2505930	C	EN		Division of application	CA 2296720
JP 4053559	B2	JA	12	Division of application	JP 2004367500
				Previously issued patent	JP 2006063089
KR 730422	B1	KO		PCT Application	WO 1998US14625
				Previously issued patent	KR 2005051721
				Based on OPI patent	WO 1999003483

Alerting Abstract WO A1

Treating neurological-urological conditions in mammals comprises administration of at least one neurotoxin.

USE - The method is useful for treating prostatic enlargement, especially benign prostatic hyperplasia, abacterial prostatitis and prostatodynia. The method is also useful for treating pelvic pain (e.g. interstitial cystitis, endometriosis, urethral instability syndrome), pelvic myofascial elements (e.g. levator sphincter, dysmenorrhea, anal fistula, haemorrhoid), urinary incontinence (e.g. unstable bladder, unstable sphincter), prostate cancer, recurrent infection (secondary to sphincter spasticity), urinary retention (secondary to spastic sphincter, hypertrophied bladder neck) and neurogenic bladder dysfunction (e.g. Parkinson's disease, spinal cord injury, stroke, multiple sclerosis, spasm reflex).

Title Terms /Index Terms/Additional Words: TREAT; UROLOGICAL; RELATED; DISORDER; NEUROTOXIN

Class Codes

International Patent Classification

IPC	Class Level	Scope	Position	Status	Version Date			
A61K-035/00; A61K-035/74; A61K-038/16; A61K-039/08; A61K-045/00			Main		"Version 7"			
A61K-031/165; A61K-038/00; A61K-038/48; A61K-039/02; A61K-049/00; A61P-013/00; A61P-013/08			Secondary		"Version 7"			
A61K-0031/16	A	I		R	20060101			
A61K-0031/165	A	I	L		20060101			
A61K-0031/165	A	I	L	B	20060101			
A61K-0031/165	A	I	L	R	20060101			
A61K-0031/335	A	I	L		20060101			
A61K-0031/335	A	I	L	B	20060101			
A61K-0031/353	A	I		R	20060101			
A61K-0031/505	A	I	L		20060101			
A61K-0031/505	A	I	L	B	20060101			
A61K-0035/00	A	I	F		20060101			
A61K-0035/00	A	I	F	B	20060101			

A61K-0035/74	A	I		R	20060101			
A61K-0035/74	A	I	F	B	20060101			
A61K-0035/74	A	I	L	R	20060101			
A61K-0038/00	A	I	F	B	20060101			
A61K-0038/00	A	I	L	R	20060101			
A61K-0038/16	A	I		R	20060101			
A61K-0038/16	A	I	F		20060101			
A61K-0038/16	A	I	F	B	20060101			
A61K-0038/16	A	I	F	R	20060101			
A61K-0038/17	A	I	L		20060101			
A61K-0038/17	A	I	L	B	20060101			
A61K-0038/48	A	I		R	20060101			
A61K-0038/48	A	I	F		20060101			
A61K-0038/48	A	I	F	B	20060101			
A61K-0038/48	A	I	L		20060101			
A61K-0038/48	A	I	L	B	20060101			
A61K-0039/02	A	I	L	B	20060101			
A61K-0039/08	A	I	F	B	20060101			
A61K-0045/00	A	I	L	R	20060101			
A61K-0049/00	A	I	L	B	20060101			
A61K-0009/00	A	I	F	R	20060101			
A61K-0009/00	A	I	L		20060101			
A61K-0009/02	A	I	L	B	20060101			
A61K-0009/08	A	I	L	B	20060101			
A61K-0009/08	A	I	L	R	20060101			
A61K-0009/10	A	I	L	B	20060101			
A61K-0009/107	A	I	L	B	20060101			
A61K-0009/14	A	I	L	B	20060101			
A61K-0009/20	A	I	L	B	20060101			
A61P-0001/04	A	I	L	B	20060101			
A61P-0013/00	A	I	L		20060101			
A61P-0013/00	A	I	L	R	20060101			
A61P-0013/02	A	I		R	20060101			
A61P-0013/02	A	I	L		20060101			
A61P-0013/02	A	I	L	B	20060101			

A61P-0013/02	A	I	L	R	20060101			
A61P-0013/08	A	I		R	20060101			
A61P-0013/08	A	I	L		20060101			
A61P-0013/08	A	I	L	B	20060101			
A61P-0013/08	A	I	L	R	20060101			
A61P-0013/10	A	I		R	20060101			
A61P-0013/10	A	I	L		20060101			
A61P-0013/10	A	I	L	B	20060101			
A61P-0015/00	A	I		R	20060101			

A61P-0015/00	A	I	L	B	20060101			
A61P-0007/10	A	I	L	B	20060101			
A61P-0007/12	A	I	L	B	20060101			
A61K-0031/16	C	I		R	20060101			
A61K-0031/165	C	I	L	B	20060101			
A61K-0031/165	C	I	L	R	20060101			
A61K-0031/335	C	I	L	B	20060101			
A61K-0031/352	C	I		R	20060101			
A61K-0031/505	C	I	L	B	20060101			
A61K-0035/00	C	I		B	20060101			
A61K-0035/00	C	I	L	B	20060101			
A61K-0035/66	C	I		B	20060101			
A61K-0035/66	C	I		R	20060101			
A61K-0035/66	C	I	F	B	20060101			
A61K-0035/66	C	I	L	R	20060101			
A61K-0038/00	C	I	F	B	20060101			
A61K-0038/00	C	I	L	B	20060101			
A61K-0038/00	C	I	L	R	20060101			
A61K-0038/16	C	I			20060101			
A61K-0038/16	C	I		B	20060101			
A61K-0038/16	C	I		R	20060101			
A61K-0038/16	C	I	F	B	20060101			
A61K-0038/16	C	I	L	R	20060101			
A61K-0038/17	C	I	L	B	20060101			
A61K-0038/43	C	I			20060101			
A61K-0038/43	C	I		R	20060101			
A61K-0038/43	C	I	F		20060101			
A61K-0038/43	C	I	F	B	20060101			
A61K-0038/43	C	I	L		20060101			
A61K-0038/43	C	I	L	B	20060101			
A61K-0039/02	C	I	L	B	20060101			
A61K-0039/08	C	I	L	B	20060101			
A61K-0045/00	C	I	L	R	20060101			
A61K-0049/00	C	I	L	B	20060101			
A61K-0009/00	C	I	F	R	20060101			
A61K-0009/02	C	I	L	B	20060101			
A61K-0009/08	C	I	L	B	20060101			
A61K-0009/08	C	I	L	R	20060101			
A61K-0009/10	C	I	L	B	20060101			
A61K-0009/107	C	I	L	B	20060101			
A61K-0009/14	C	I	L	B	20060101			
A61K-0009/20	C	I	L	B	20060101			
A61P-0001/00	C	I	L	B	20060101			
A61P-0013/00	C	I			20060101			
A61P-0013/00	C	I		R	20060101			

A61P-0013/00	C	I	L		20060101			
A61P-0013/00	C	I	L	B	20060101			
A61P-0013/00	C	I	L	R	20060101			
A61P-0015/00	C	I		R	20060101			
A61P-0015/00	C	I	L	B	20060101			
A61P-0007/00	C	I	L	B	20060101			

ECLA: A61K-031/16, A61K-031/353, A61K-035/74, A61K-038/16B, A61K-038/48N

US Classification, Current Main: 424-184100, 424-239100, 514-002000, 514-012000; Secondary: 424-009100 , 424-236100, 424-239100, 514-002000, 514-453000, 514-625000, 600-029000

US Classification, Issued: 424239.1, 5142, 424184.1, 424239.1, 51412, 424239.1, 424239.1, 5142, 424239.1, 514453, 514625, 5142, 60029, 424239.1, 424239.1, 4249.1, 424236.1 , 424239.1, 424236.1, 4249.1, 424239.1, 424236.1, 4249.1, 424239.1, 4249.1, 424236.1

File Segment: CPI

DWPI Class: B05

Manual Codes (CPI/A-N): B10-B02F; B14-N07; B14-N07A